Clinical Lecture ON HÆMOPTYSIS.

Delivered at St. Thomas's Hospital,

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GENTLEMEN,—There are few affections which the practitioner is more frequently called upon to treat, and none which offer greater difficulties in the selection of their treatment, or are more alarming to the patients and their friends, than hæmoptysis. I have therefore thought that a few remarks on the subject would be not without use and interest to you, and the more especially as we have, during the summer and recently, had cases in the wards which bear upon several of the points on which I propose to speak.

Under the term of hæmoptysis, however, I must be understood to refer to cases of hæmorrhage proceeding from the substance of the lungs or bronchial mucous membrane, not to cases in which blood is poured into the tubes from the sac of an aortic aneurism.

Hæmoptysis, thus understood, may occur under the following different circumstances:—First: When there is considerable vascular excitement or active inflammatory action, while the loss of blood, instead of being, as in ordinary cases of pneumonia, a mere tinge, is entirely disproportionate to the amount of inflammation which exists. Secondly: When it arises in connexion with extreme congestion, temporary or permanent, of the lungs. Thirdly: When it occurs without having been preceded by any decided exciting cause, or after the operation of only some slight cause, and in persons who, though they may be at the time in good or average health, are predisposed, either hereditarily or otherwise, to consumption. Fourthly: When it arises in persons who are already the subjects of disease in the lungs to a more or less marked extent.

The symptoms of the disease, the course which it is likely to run, and, to a considerable extent, the treatment which it should receive, will vary in each of these different forms.

The first form of hæmoptysis is generally seen in persons who have been much exposed to cold or damp, or to the two combined. I have known it occur after bathing, and in persons who had sustained hardships during stormy weather at sea. In these cases the hæmoptysis is not generally profuse, but the blood which is expectorated is very viscid, probably from containing a large proportion of fibrin, and is mixed with the products of inflammation. The inflammatory action may affect chiefly the cells of the lungs or bronchial mucous membrane, but more frequently the whole substance is more or less involved. The hæmorrhage which occurs in acute plastic bronchitis, on the separation of the exuded false membrane, affords another example of this form. I have not myself seen any case of the kind, but various instances are on record, and I may particularly refer to two cases mentioned by Sir Thomas Watson. In this form of hæmoptysis, in addition to the signs caused by the presence of blood in the lungs, there will also be the usual evidences of bronchitis or pneumonia, together with the furred tongue, the flushed face, the dry skin, and the increased temperature which attend these diseases.

The second form of the affection occurs in connexion with mitral obstruction and regurgitation, and especially with the latter, and is usually combined with pulmonary apoplexy. The blood expectorated in these cases is generally dark-coloured and airless. It is not brought up in large quantities, and is usually combined with other secretions, such as are thrown out in cases of chronic bronchitis, broncho-pneumonia, and œdema of the lungs. Blood also is expectorated under similar circumstances in cases of imperfect expansion of the lungs combined with deformity of the spine.

The third and fourth forms of the affection are those which are of most common occurrence. In the first of these the expectoration is often very profuse, and the blood at first brought up is very fluid and contains much air. Subsequently it is often coagulated, dark-coloured, and airless. The expectoration rarely occurs to a marked extent at first, but generally there is a little blood brought up, perhaps only a few drops, or a teaspoonful of fluid blood, or a small coagulated mass; and this may be followed, after an interval of a few hours or a day or two, by a similar but larger expectoration, and that again perhaps by a very profuse hæmorrhage, which takes place rapidly, so that the patient will expectorate the blood constantly for some minutes or hours. Generally an expectoration of this kind arises after some failure of health; the patient has been languid or feeble, and his appetite and digestion impaired, suffering from a little cough, with or without expectoration, and has been noticed by his friends to be falling away in bulk for some little time. Under these circumstances, the first expectoration may occur without having been preceded by any obvious exciting cause, or only after some slight exposure to cold. In other cases, the hæmorrhage occurs in persons quite in good health, and then generally follows the operation of some decided exciting cause — playing at cricket, football, or rowing, or lifting heavy weights; or it takes place in persons of dissipated habits after a debauch. It is rare that an expectoration of blood occurs suddenly, and equally suddenly ceases. Generally after the bleeding has come on somewhat gradually in the way described, and has continued for hours, or a day or two, it ceases, either entirely or partially, and recurs again, though to a smaller extent, in some hours, or in two or three days, or a week; and generally in the interval, and after the final cessation, blood, evidently of old date, is expectorated. Should a copious hæmorrhage of bright blood suddenly occur, and equally suddenly cease, it will most probably have proceeded from the sac of an aneurism which has formed a connexion with the trachea or larger bronchial tubes. During the process of cessation the sputum generally continues bloody for some days, either the whole mass being more or less deeply tinged, or the matters expectorated consisting partly of bloody sputum and partly of ordinary bronchitic or pneumonic expectoration, having a more or less dark colour. Very often the sputum, especially when the hæmorrhage has been profuse, is very offensive to the smell. Occasionally, when there has been large loss of blood, after some time has elapsed the patient will cough up a distinct moulded and partly decolorised coagulum, or, as it was termed by the older pathologists, a "bronchial polypus."

The results of stethoscopic examination vary in these cases. Supposing the lungs to have been previously free from disease, during the active period of the hæmorrhage somewhat small crepitation is heard, though the sound is less fine than that which indicates the first stage of pneumonia, and the resonance on percussion will be little if at all impaired. Supposing the hæmorrhage to go on, and the blood not to be entirely expectorated, a portion of the lung, generally under one clavicle, becomes consolidated; the movement of the parietes is almost entirely abolished; there is entire dulness on percussion; and the respiratory sounds are almost absent, or there is decided bronchial respiration. This dull space may be very extensive, occupying, perhaps, the whole of one upper mammary region, and generally, but not invariably, around the margins of the dull space, crepitation of a more or less fine character is heard. Subsequently, as the blood is expectorated or absorbed, the air again enters into the consolidated portion, and sounds similar to the returning crepitation of pneumonia become audible. I have occasionally known the anterior portions of the chest to yield a peculiarly clear note on percussion—to become, indeed, quite tympanitic, while the chest movement is almost abolished, and the respiratory sounds are nearly inaudible. The explanation of this peculiar condition is, I think, to be found in the obstruction of the posterior part of the lungs by the extravasated blood gravitating to the back as the patient occupies the recumbent position, and so causing the air more fully to inflate the anterior portions, while the obstruction in the tubes prevents the escape of the air which has entered into the distended cells. When, after a time, the removal of the blood from the posterior part of the chest allows the air again to enter into these portions of the lung, the undue inflation of the other part ceases, and the respiratory movements and sounds return without the occurrence, perhaps, of any crepitation or any other morbid sounds being heard in the inflated portion of the lung. Of course, after an attack of

this kind there is more or less constitutional disturbance, for not only is the respiratory process interfered with by the extravasated blood, but there is also a rent in the substance of the lung, which is necessarily followed by inflammatory action: hence the pulse is quickened; the breathing rapid and short; there is a troublesome cough, often both severe and frequent; and the temperature is raised. As these attacks generally occur in persons of debilitated habit, they are attended by considerable prostration of strength, the fever has a tendency to assume the hectic type, characterised by a low temperature and great feeling of exhaustion in the morning, and by marked increase of heat and aggravation of all the symptoms at night.

It has been thought that hæmorrhage of this kind is necessarily connected with some deposit in the chest, but I am well convinced that it is not always so. I have seen cases in which the hæmorrhage has proved fatal, and no appearance of tubercle has been found in the lungs; and, judging from clinical experience, I should regard such an occurrence as not uncommon; certainly cases of hæmoptysis are not unfrequently met with in which the lungs, if not absolutely sound, do not present evidences of material disease.

The last form of hæmoptysis is also of very frequent occurrence. In this the hæmorrhage is not generally profuse; often it only amounts to some streaks or specks in the sputum, or to the expectoration of a few masses of deeply tinged sputum or of blood; but it is generally of this description because the bloodvessels in the neighbourhood of cavities in the lungs are ordinarily occluded by adherent coagula. Occasionally, however, a large expectoration of blood takes place where there is decided disease of the lungs. Thus in some cases, in consequence of the formation of a small cavity in the neighbourhood of one of the large branches of the pulmonary artery, the coats of the vessel, being deprived of support, become expanded, and so a small aneurism is formed, which giving way allows a large escape of blood to take place. This, I believe, generally occurs in early and rapidly progressing phthisis. In other cases of advanced phthisis copious hæmorrhage may also occur from a vessel, probably only of small size, giving way. The blood oozing from it gradually fills the cavities, and is then expectorated in large quantities, simulating the sudden outpouring of blood by a large vessel. In cases of this description the physical signs will differ from those in the second form, as, in addition to those which may result from the outpouring of blood, there will be evidence of more or less previous disease in the lungs.

The immediate sources of danger in cases of hæmoptysis are—first, shock or syncope from the sudden and rapid occurrence of profuse hæmorrhage in a healthy person, or from the escape of smaller quantities of blood in a person previously in delicate health or the subject of disease; and, secondly, apnœa, from the accumulation of blood in the lungs which the patient is not able to expectorate. It is, however, rare that the quantity of blood discharged at one time is so great as to destroy life by the shock which it occasions, if the attack occur in a person previously healthy; but in those who are the subjects of disease and already much reduced, such a result may readily ensue. So also the engorgement of the lungs from inability to bring up the blood which is thrown out, and consequent death from apnœa, is more likely to occur in a person previously phthisical. Most generally, however, death is the result of a combination of these causes, aggravated by the alarm which the hæmorrhage creates; and thus patients often die after comparatively small losses of blood, and in whom there has occurred but little bleeding into the lungs.

The more remote sources of danger are—first, gradual sinking from repeated small losses of blood; secondly, the development of low inflammation affecting the mucous membrane of the bronchi, or the substance of the lungs, and more generally both; and, thirdly, at a still more distant period, the supervention of phthisis. Of these the second is, perhaps, the most frequent cause of the fatal result. It often happens, in cases where the patient has sustained very large losses of blood but where the tendency to hæmorrhage appears to have subsided, that after a few days have elapsed inflammatory symptoms supervene and rapidly carry off the patient. In all cases, as there is necessarily some injury to the texture of the lung, inflammatory action must, however, ensue to a greater or less extent, and often there is a more general congestion of the lung, probably due to chill and exposure.

The prognosis in any given case of phthisis must be founded on the following considerations:—1. On the amount of blood which has already been lost, the degree of prostration which it has occasioned, and the ability of the patient to sustain a further hæmorrhage should it occur. 2. On the condition of the lung as affected by the hæmorrhage which has occurred, and the facility with which the blood effused has been expectorated. 3. On the previous state of health of the patient, as rendering it probable that the lungs were before in a healthy state, or more or less diseased. 4. On the family and personal history, as indicating the existence of a predisposition to phthisis, which may entail danger of the supervention of that disease, even though the hæmorrhage has been very slight, and the lungs at the time of the attack were entirely free.

It is often very difficult, when the practitioner is called to a patient who is spitting blood, and with whose previous state he is unacquainted, to ascertain the condition of the lungs before the occurrence. The engorgement of a portion—most generally the upper part,—on one or both sides, may give rise to all the signs of consolidation, and may lead to the conclusion that the patient was labouring under serious disease before the occurrence of the hæmorrhage; yet this conclusion may be incorrect. With the progress of the case the signs may wholly disappear and the patient may entirely recover, with little or no evidence remaining of any disease of the lung. On the other hand, the peculiar inflation of the anterior part of the chest, consequent apparently on the engorgement of the posterior portions, may entirely cover the dulness on percussion, which would otherwise have been occasioned by a limited deposit of tubercle or other kind of consolidation. If, however, the loss of blood has been small, and the patient is but little reduced by it, a very cautious prognosis should always be given; for at any time, when least expected, a repetition of the hæmorrhage may occur; and in cases where there is reason to believe that the lungs were sound previous to the attack, and where the predisposition to phthisis is but slight or altogether absent, that disease may, nevertheless, sooner or later occur. Of course, however, the immediate danger is greater in proportion to the extent of the hæmorrhage and the degree of prostration, and the ultimate danger of the supervention of consumption or of the aggravation of any disease which exists, is equally increased by these causes and by the existence of a decided predisposition to the disease. In no cases, however, does phthisis more surely and rapidly supervene than when repeated attacks of hæmorrhage occur at short intervals, though the amount of blood lost in each attack may only be trivial.

It is evident that the treatment which should be adopted in cases of hæmoptysis must vary considerably according to the circumstances under which the discharge of blood occurs. In the first form of the affection, or that in which the hæmorrhage occurs in connexion with considerable vascular excitement or actual inflammatory action, the treatment must be chiefly directed to the relief of that condition; though it may be necessary to employ remedies calculated directly to arrest the bleeding in conjunction with such treatment, or after the excited action has subsided. In such cases, therefore, we must employ sedatives, together with remedies that reduce the condition of the blood, and promote elimination, especially by the skin and kidneys; and I believe, though I have not myself of late years adopted the practice, that general bleeding to a moderate extent would in cases of this kind be often beneficial.

In cases in which the blood is expectorated from the rupture of vessels very greatly distended in consequence of obstruction to the flow of blood through the lungs, in connexion with mitral valvular disease or otherwise, the loss of blood is not generally so large as to be in itself very important, though the lungs are often still further embarrassed by the infiltration of the blood into their tissue. In these cases the attention must mainly be directed to relieve the condition upon which the disease is primarily dependent. We should chiefly employ eliminants, so as, by promoting the flow of the urine and the secretion from the alimentary mucous membrane, to lessen the amount of the circulating fluid and relieve the general congestion. It is questionable whether in some of these cases the greatest

relief would not be obtained by bloodletting to a moderate amount. This I have two or three times tried, and certainly in one case with very striking benefit. Most generally, however, the indication is to be carried out by the use of purgatives and diuretics combined with medicines calculated to give tone to the muscular structure of the heart. It is in these cases that digitalis is often found eminently useful, acting as it does as a diuretic, and, if not too long continued, giving strength to the pulse, and reducing its frequency. On this subject what I have said elsewhere has been somewhat misunderstood. I cannot doubt that the first effect of the exhibition of digitalis is to quiet the action of the heart and arteries, but I feel well convinced that this effect is only of temporary duration, and that, if the remedy be long continued, it exercises a generally depressing power, under which the pulse again rises. I believe digitalis to be eminently useful, partly by its sedative and partly by its diuretic action, especially in those cases in which, with mitral incompetency, there is dilatation and weakness of the left ventricle, giving rise to great irregularity in the action of the heart, and generally combined with dropsy.

In reference to the third and fourth forms of hæmoptysis, they are mainly to be met by sedative and astringent treatment.

In all cases it is of the greatest possible importance that entire rest and absence of all excitement should be enforced; and this whether the hæmorrhage be only slight or more copious. It must be borne in mind in cases where for the first time a small hæmorrhage occurs, that such often precedes the outpouring of a large amount of blood, and every precaution should therefore be taken. It is also desirable that these precautions should be continued for some time, as it is quite impossible to say when the hæmorrhage may not recur. After copious hæmorrhage it is better not to disturb the patient for the sake of obtaining a good examination of the chest; the information so gained may be very valuable as furnishing the basis of a correct prognosis, but it may be gained at too great a cost. I have seen the discharge of blood brought on by simply raising the patient so as to examine the chest, and a fatal result all but occasioned. For the immediate checking of the hæmorrhage, the spray of tincture of perchloride of iron is often very useful; and the presence of the medical attendant, and his calmness and composure when the friends and attendants are in the greatest alarm, will often do much to encourage the patient, and to lessen the loss of blood which would otherwise be sustained.

The remedies to be applied must vary with the nature of the case. If the hæmorrhage be only slight, and the patient previously in good health, mild astringents, with slight sedatives, such as the sulphuric acid and sulphate of magnesia, may be all that is needed; but when the hæmoptysis is profuse, the more powerful sedative styptics must be had recourse to, as the acetate of lead or gallic acid, and especially combined with opium to quiet the nervous excitement. In cases, on the other hand, in which the patient is previously feeble or much reduced, the more stimulating astringents, as the oil of turpentine, must be employed. The food given must be mild and unstimulating but nutritious, for few persons who suffer from hæmoptysis are really robust and capable of bearing much reduction. The food also is generally given cold or cool, and it is probably best to do so; but I am not satisfied that much benefit results from swallowing ice. It cannot, I think, exercise much constringing on the vessel which is bleeding in the lungs, and may cause gastrodynia or diarrhœa. Still less do I approve of the application of cold water or ice to the exterior of the chest. It seems improbable that such application can have much effect in checking the hæmorrhage, while it may, by increasing internal congestion, promote it; and it must certainly, by chilling the patient, be liable to cause inflammation of the lungs, which, it has been before said, is very apt in all cases to arise after pulmonary hæmorrhage, and not unfrequently occasions the fatal result.

Whatever be the course of treatment which it is thought right to adopt at the commencement of an attack of hæmoptysis, sooner or later it is generally necessary to have recourse to more stimulating and supporting measures. Thus, if the hæmorrhage continue, in place of sedatives the stimulating and tonic styptics must be given in combination with more decided support and the diffusible stimulants. It is often difficult to decide when the time has arrived for this change to be made, and it may be necessary to adopt at first a somewhat tentative plan. Thus ammonia may be given, or brandy diluted with water, beef-tea, or in arrowroot, in very small doses, not more than half a teaspoonful or a teaspoonful, may be administered. If the pulse become quieter, there can be no doubt of the propriety of continuing the treatment, the doses being exhibited at more or less frequent intervals according to the urgency of the symptoms and the effects produced. I have thus frequently seen hæmorrhage checked which was previously but little influenced by the treatment adopted. In some cases, and especially where the hæmorrhage takes place into the lungs, and the patient, from weakness or other cause, is incapable of expectorating the blood, stimulants must be given most freely, and form indeed the only chance for the life of the patient. Above all things in such cases the most entire quiet must be enforced. Great care is often needed in exhibiting aperients. I have known alarming and almost fatal sinking caused by their action. The bowels should be relieved, but it is safest to accomplish this by the use of enemata.

In cases of the fourth form of blood-spitting, when there is already extensive and advanced disease of the lungs, and the patient's strength is much reduced, the treatment must be cautiously adapted to the amount of the hæmorrhage and the power of the patient. In some such cases the hæmorrhage depends upon some temporary congestion from exposure to cold, and if only to a slight extent, it may be very much left to itself, or even met by some mild eliminating treatment. When, however, the bleeding is at all profuse, powerful stimulating styptics must be given. The support and stimulus which the patient was previously taking must also be very cautiously reduced, or it may be necessary still to continue it, or even to increase the quantity. The most complete absence of excitement must be enjoined.

The after-treatment of cases of hæmorrhage rather falls under the course to be adopted for the prevention of phthisis, and has already been alluded to on a former occasion; it is therefore not necessary to dwell upon it at present. I may, however, remark that the danger of the occurrence of subsequent disease of the lungs being superinduced is greater in proportion to the large extent of the loss of blood which has been sustained, the prostration which it has produced, and the evidence of previous disease of the lungs, or of predisposition to phthisis, hereditary or acquired. Great caution also is needed, in carrying out the subsequent course of treatment and regimen, that the patient should not suddenly become plethoric, that all active exertion of body or excitement of mind should be avoided, and especially that he should be carefully protected against the influence of cold. It is always desirable, if the patient's circumstances allow of it, that he should spend the first winter following an attack of spitting of blood in a warm climate or warm situation; or if he be not too weak and be a good sailor and not liable to suffer from sea-sickness, he should take a sea voyage, so as to enjoy the invigorating effects of fresh air and change of scene without fatigue or undue exertion. It is undesirable that he should travel much by land, lest he should so take cold or have a return of the hæmorrhage; and this is especially to be avoided in countries where, in the event of any serious symptoms supervening, he would be incapable of obtaining adequate medical care and attention.

CONTRIBUTIONS ON THE PHYSIOLOGY & THERAPEUTICS OF FOOD.

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No. III.

ALIMENTARY PRINCIPLES.

OF the various elements in nature only a limited number enter into the constitution of the human body; and of these, carbon, hydrogen, oxygen, and nitrogen occur in much larger quantity than any others. Food being the source from which the elements forming the constituents

of the body are derived, it follows that no food can meet the requirements of life that does not contain all the elements existing in the body. It is only in a state of combination that the elements are of any service to us as food, and the combination must constitute an organic product.

Now these organic products may, by analysis, be resolved into a variety of definite compounds—the "alimentary principles," in short, so called in contradistinction to "alimentary substances," or articles of food as supplied by nature.

In a scientific consideration of food it is necessary to treat of the alimentary *principles*; only, indeed, by looking at it in this light can we discuss its physiological bearings. First, then, let attention be directed to the classification of these principles.

Classification of alimentary principles.—Popularly the ingesta are spoken of as consisting of food and drink: the one supplying us with solid, the other with liquid, matter. In a physiological point of view, however, this classification is worthless: milk, for example, being a liquid article, but rich in food or solid matter; while in almost all the food we consume there is a large proportion of water. The separation of the ingesta into "food" and "drink" has, therefore, no physiological significance.

The two material factors of life are food and air; and food may be considered as comprising all that assists in the growth and nutrition of the body, and, by oxidation, in force-production. Regarded in this comprehensive light, food embraces both liquid and solid matters; and the first natural division is into organic and mineral—that is, combinations of elements producible only through the agency of life, and chemical combinations drawn simply from the mineral kingdom and incorporated with the others.

The mineral portion of food consists of water and various saline principles. The organic may be subdivided into compounds of which nitrogen forms a constituent, and compounds from which it is absent; in other words, into nitrogenised and non-nitrogenised compounds. The non-nitrogenised alimentary principles are composed of the three elements, carbon, oxygen, and hydrogen, variously united together; whilst the nitrogenised likewise contain these three elements, but, in addition, nitrogen and usually sulphur, or sulphur and phosphorus, as well.

Liebig, regarding the nitrogenised and non-nitrogenised principles as contributing to quite distinct ends in the animal economy, referred to them as forming the basis of a physiological classification. The former he looked upon as destined for appropriation towards the construction and maintenance of the body, and therefore he called them "plastic elements of nutrition." The latter he regarded as simply designed for undergoing oxidation, and, in this way, for serving as a source of heat. These he termed "elements of respiration"; but the expression is a bad one, as it does not really convey what is meant. Dr. R. D. Thompson suggested that the term calorifiant should be adopted instead. The more correct modification of this—"calorifacient"—has found its way into frequent use.

It stands to reason that for the growth and repair of the several textures of the body, as these have nitrogen forming an essential ingredient of their construction, nitrogenised compounds must be supplied; but from what is now known, it must also be said that these compounds are further susceptible of application to heat-production. They are indeed "histogenetic" or tissue-forming materials; but by the separation of urea (which is known to occur in their metamorphosis in the animal system) a hydro-carbonaceous compound is left which may be appropriated to heat-production. It may be regarded, in fact, as demonstrable that the nitrogenised principles subserve both purposes in the animal economy.

In fat, again, we have a non-nitrogenous principle, belonging to the calorifacient group; but fat nevertheless is essential to tissue development, and must accordingly take rank among the nutrient principles.

Hence Liebig's classification is not to be rigidly accepted. Although nitrogenised principles constitute true "elements of nutrition," yet it neither follows nor appears to be the case that they are limited to this purpose. Fats are undoubtedly calorifacients, and cannot, it is true, *per se* supply what is required for tissue development; they nevertheless, however, contribute to the process. According to present views, which will be discussed more fully further on, fats are also concerned in a manner not previously suspected, in muscular force-production. Taking all these considerations into account, Liebig's classification loses the scientific force it was originally supposed to possess. The subdivision of the organic portion of food, however, into nitrogenised and non-nitrogenised groups is still practically and physiologically convenient.

The classification which appears to me most convenient to adopt is one which involves no expression of physiological theory, but is based on the chemical nature of the principles.

It is first assumed that food falls naturally into
Organic, and
Inorganic
divisions. Next, that the organic is subdivisible into
Nitrogenous, and
Non-nitrogenous;
and, again, that the non-nitrogenous is naturally and conveniently re-subdivided into
Fats, and
Carbo-hydrates:
the former consisting of carbon and hydrogen in combination with only a small quantity of oxygen; the latter, of carbon with oxygen and hydrogen always in such relation to each other as to be in the exact proportion to form water. To this latter group belong starch, sugar, gum, &c.

Having said thus much on the classification of the alimentary principles, I shall next deal with them in relation to their respective physiological bearings, taking first

THE NITROGENOUS ALIMENTARY PRINCIPLES.

Nitrogen enters largely into the composition of the animal body, and must therefore be freely supplied from without. Although living in an atmosphere consisting of about four-fifths nitrogen, it is not from this source that our supply of nitrogen is derived. Nitrogen, to be available for us, must be supplied in a state of combination—in compounds which answer to the term "organic."

Among the nitrogenous matter found in different articles of food chemists recognise several well-defined compounds, some of which are characterised by yielding proteine when subjected to the action of an alkali and heat; while from others no proteine is similarly procurable. The former comprise the albuminous group, and are often referred to as the proteine compounds; the latter constitute the gelatinous principles.

Proteine, consisting of four elements—carbon, hydrogen, oxygen, and nitrogen,—constitutes a chemical and not a physiological principle, serving to link together certain important physiological compounds, such as albumen, fibrine, and casein, and certain other modifications of these.

Albumen may be regarded as the most important of these compounds, on account of the large extent to which it is encountered. It consists of the four elements, carbon, oxygen, hydrogen, and nitrogen, with the addition of some sulphur and phosphorus. It exists under two states—viz., soluble and coagulated albumen, and it can afford *per se* the nitrogenous matter required for nutrition.

Fibrine has the distinctive property of undergoing spontaneous coagulation; while casein differs from albumen not only by being non-coagulable by heat, but by being thrown down by organic acids.

The modifications of these proteine compounds are such as vitelline, existing in the yelk of egg; globuline, a constituent of the blood-corpuscle, and also elsewhere existing; and syntonine, or muscle-fibrine, first recognised by Liebig as distinct from blood-fibrine.

Besides the proteine compounds in animal productions, there are also in vegetable productions certain compounds which, in the language of Liebig, are identical with the albumen, fibrine, and caseine of the animal kingdom. Vegetable albumen, for instance, is met with in wheat and the other cereals, and likewise in most vegetable juices; vegetable fibrine in the gluten which remains behind when flour is washed with a stream of water; and vegetable caseine in peas, beans, and other leguminous seeds.

The gelatinous compounds, though nitrogenous, do not yield proteine. They comprise gelatine and chondrine, and are to be obtained only from animal products.

Digestion of nitrogenous alimentary principles.—All the nitrogenous compounds must undergo digestion before they can enter the system; in other words, they must be liquefied and transformed in order to be fitted for absorption.

Beyond being reduced to a more or less finely divided state in the mouth, our nitrogenous food undergoes no change till it reaches the stomach. There it comes in contact with the gastric juice, which dissolves and transforms it into a principle highly diffusible, and thereby readily transmissible from the alimentary canal into the blood-vessels. Under the influence of this gastric secretion all the nitrogenous alimentary principles lose their characteristic properties on becoming converted into the soluble and diffusible product referred to—a product which Mialhe was the first to recognise and term albuminose; since called peptone by Lehmann. Mialhe held that the product obtained from the digestion of the proteine principles was identical with that obtained from the digestion of the gelatinous; but this is probably incorrect, as it would bring the gelatinous principles into the same position as the albuminous as regards alimentary value, which there is reason to believe they do not in reality hold.

No matter from what principle—albumen, fibrine, caseine, or gelatine—a digested product or peptone has been obtained, the following characters are found to belong to it. It is eminently soluble in water, in the acid, neutral, or alkaline state. It is not precipitable from its aqueous solution by heat. It is soluble in dilute alcohol, while absolute alcohol precipitates it. It is uncrystallisable, devoid of odour, and almost of taste. Its physiological significance is its high diffusibility, and hence capacity for absorption.

The *modus operandi* of the change wrought by the stomach cannot be precisely explained. There are two indispensable ingredients in the gastric juice—namely, pepsine (a neutral nitrogenised principle) and an acid. Pepsine is a secreted product peculiar to, and obtainable only from, the stomach. About the acid there is nothing peculiar, and different views have been held regarding its nature. Combined with it, pepsine forms a liquid which dissolves nitrogenous matter equally out of the stomach as within it. Lehmann holds it to be only hydrochloric and lactic acids, which, with pepsine, yield energetic digestive fluids; but, according to my own experiments on artificial digestion, other acids, phosphoric, sulphuric, citric, and so on, will produce equally striking results.

The solution of nitrogenous food in the stomach, then, is effected by a liquid which owes its virtue to two principles, pepsine and an acid. Its action is favoured by the high temperature inherent in the body, and by the movement the stomach performs through the muscular fibres of its walls. Reduced to a fluid state, it constitutes chyme, and is forced on into the upper bowel. Besides nitrogenous matter in a dissolved state, chyme contains still a portion suspended in a finely-divided form which has not yet undergone solution, and, also in the same state, those constituents of the food which resist the solvent action of the stomach. I will next speak of the further action that occurs when chyme reaches the intestine.

ANALYSIS OF 11,000 CONSECUTIVE CASES OF SKIN DISEASE.

BY DR. McCALL ANDERSON,

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(*Concluded from page* 842.)

THE last class of diseases—the hæmorrhages—includes a smaller number of cases than any of the others, not because they are infrequent, but because they are not usually regarded as diseases of the skin. Only nine cases were observed, all of which were varieties of purpura, although the case of ephidrosis cruenta, alluded to under the head of "functional affections," ought, strictly speaking, to have been classed with the hæmorrhages. It will be noticed that two cases, one of them a hospital and the other a private case, of that variety of purpura described under the name of purpura rheumatica (peliosis rheumatica—Schönlein) or purpura pemphigoides, occurred; and it is worthy of remark that, while in both these cases the bullous and the rheumatic elements were present, in some, one or the other is absent. The following is the note taken of the hospital case:—

Martha B. M——, aged twenty-four, came for advice at the Dispensary for Skin Diseases on Jan. 13th, 1869, on account of an affection of the lower extremities of three months' duration. At that time round red spots, for the most part the size of a fourpenny-piece, made their appearance; the next day they assumed a bluish tint; and on the third disappeared, leaving yellowish stains. On the fourth day a fresh crop was observed, which ran the same course, and was succeeded by successive outbreaks up to the time of her coming to the dispensary. When these symptoms first appeared they were accompanied by great swelling of the ankles and by severe aching pain in them. At the same time a large bulla, about the size of a halfpenny, formed on the outer side of the right ankle. About a fortnight previous to admission a similar bulla was detected on the inside of the same leg. On examination, the remains of this bulla were still apparent; and numerous purpuric spots, varying in size from a pea to a sixpence, and of a reddish, livid, or yellowish tint, were scattered over both lower extremities. The veins were not varicose. She seemed in pretty good health; her gums were healthy; she had always had plenty of food of good quality, and had never before suffered from rheumatism. The treatment consisted of ten drops of turpentine on sugar three times a day, with occasional doses of castor oil, which had an immediate effect upon the disease; but it was two months before all tendency to the development of purpuric spots had disappeared, and for some time she was troubled with an ulcer which formed in the site of the last bulla as the result of injudicious local applications.

The following is an abstract of the private case, which was seen by me in consultation with Dr. S. J. Moore, of Glasgow, on December 9th, 1868. The patient was a stout, healthy-looking gentleman, who "had never had a day's illness in his life," but who was interested in, and probably excited by, the municipal elections which at that time were pending. For several weeks he complained of pains, or rather perhaps of weakness, in his joints, especially those of the lower extremities; but his illness, which was accompanied by febrile symptoms, set in decidedly only a few days before I saw him. His tongue was moist and not much coated; his appetite fair; his bowels had been freely opened by medicine; and his urine, which previously had been scanty and loaded with lithates, was clear and of fair amount, under the influence of acetate of potash and colchicum. His pulse was 120 and rather feeble, but its rapidity was out of proportion to the extent of the fever. The lower extremities were markedly œdematous. There was swelling around some of the joints, and a feeling of stiffness rather than of pain in them, which was attributed to the swelling. Three morbid elements were observed on the skin—namely, purpurous spots, a papular eruption, and bullæ. The first varied in size from mere points to ecchymoses the size of the palm and for the most part round. The greater number of the small ones constituted apparently the second stage of the papular eruption; and on the back, where the latter was most abundant, the transition from papules to purpurous spots was observed—that is to say, papules whose elevation was subsiding, and whose redness only partially disappeared on pressure. Most if not all of the large ecchymoses occupied the seats of previous bullæ, which varied in size from a split pea to a goose's egg, and which, when at their height, were fully distended with clear serum. The black purpuric patches covered by the flaccid envelopes of the bullæ after the serum had escaped looked very like patches of skin which had mortified. The bullæ were most abundant on the legs and buttocks; and the cutaneous manifestations had no special tendency, such as is often observed, to implicate the skin around the joints. The acetate of potash was continued, and purgative doses of castor oil and turpentine were recommended, along with light, nourishing, fluid food.

Although not included in the present statistics, the following case, which was seen by me in consultation with Dr. Adam, of Coatbridge, while these papers were being written,

is worthy of note, owing to the rapidity with which the disease proved fatal:—A mining engineer, aged twenty-seven, who had previously enjoyed good health, but who had lost a brother of phthisis and a sister of "softening of the brain," began to complain of debility, "weak stomach," and constipation, as the result, it was supposed, of hard work and irregularity as to his meals. His symptoms did not improve under treatment; and he was therefore sent to Arran for change of air. On Friday, the 16th of August, while there, his eye became ecchymosed, when he immediately returned home. When I saw him on Monday, the 19th, copious extravasation of blood was observed beneath the conjunctivæ and around the eyes, while small purpuric spots were detected upon the legs, which had only appeared on the morning of my visit. His gums were bleeding, he had slight hæmorrhage from the stomach and bowels, and the urine was bloody. Two days afterwards he died. Dr. Adam wrote me as follows with regard to him:—"After he got the castor oil and turpentine the hæmorrhage from the kidneys and mouth became much less; but it never altogether ceased from the stomach till a few hours before death, up to which time the retching and vomiting of altered blood were very persistent. Although stimulants were given very freely, exhaustion came gradually on, accompanied with delirium."

The last case, which is named purpura tuberculosa in the classified list, but which might with equal propriety be termed P. verrucosa, or, as suggested by my late colleague, Dr. A. B. Buchanan, who saw it along with me, P. hypertrophica, was that of a woman aged sixty-six, who had formerly been in service, whose family history was good, and who had previously enjoyed excellent health. Four months prior to my visit, as the result, it was supposed, of poor fare, she began to complain of pain and swelling of the right foot, shortly after which slightly elevated, livid spots, about the size of pin-heads, made their appearance on the thigh. These rapidly increased in number and in size until they became as large and as elevated as split-peas, especially on the inner and posterior aspects of the thigh. In these situations the surface of the patches, which were blackish, gradually assumed a distinctly warty appearance and feel. At this time, too, the whole limb became thicker, so that its diameter was about a half greater than that of the left. This increase was, in the foot, principally the result of œdema; but in the leg and thigh it was mainly, if not entirely, due to induration of the cellular tissue. When I saw the patient this induration was not limited to the limb, but implicated likewise the right side of the abdominal parietes and the right breast, which was firm, round, and plump, while the left was flabby and about one-third the size. The left thigh was at this time affected similarly to the right, but to a much slighter extent. The legs were quite free of eruption. The patient complained of neither pain, itching, nor heat; but on placing the hand upon the eruption, especially upon the warty part, it felt much warmer than the healthy skin. (The temperature was one degree higher.) The right limb felt numb and weak, and she was confined to her bed owing to the uneasiness experienced in sitting as the result of the eruption. She was thin, but not more so than many people of her age; her appetite was bad, and her bowels exceedingly costive, as the result, probably, of the confinement in bed. Otherwise she appeared well, and was very cheery. She gradually sank, three months after I first saw her and seven months from the commencement of the disease, suppuration having occurred at those parts which were in contact with the bed shortly before death.

Glasgow, Nov. 1871.

MIDDLESEX HOSPITAL.—The following resolutions have been passed by the Weekly Board and Medical Committee, on the occasion of the lamented death of Dr. Davidson:—"The Medical Committee desires to express its great regret at the death of Dr. John Davidson, late house-surgeon and resident physician's assistant, whose intelligence, devotion to duty, high principles, and amiability, won the esteem and respect of the whole staff."—"The Weekly Board desire to record how cordially they unite with the expression of sympathy of the Medical Committee at the death of Dr. John Davidson, and their thorough appreciation of his most excellent character and services."

ON THE TREATMENT OF HYPERPYREXIA BY WITHDRAWAL OF HEAT.

BY T. CLIFFORD ALLBUTT, A.M., M.D., &c.,
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THE report of my introductory address at Leeds has brought upon me a quantity of correspondence, directed especially to two points: first, as to the truth of the elimination or "effort of nature" theory, to which I have already replied in THE LANCET; secondly, as to the treatment of hyperpyrexia by withdrawal of heat, and to this I propose, in reply to my correspondents, to add some further evidence. This evidence I shall put as shortly, I hope, as the claims of a weekly journal demand; but the subject is of the highest importance, both in itself as a direct means of saving life by art, and also as forming a great part of the constructive side of that dialectic which, on the other hand, aims at the destruction of the "effort of nature" hypothesis.

Many of my readers seem to have been of opinion that my own experience and that of Dr. Wilson Fox, which I quoted in terms of warm congratulation, stand alone, and I am assured by them that further observation will greatly modify our views. The very striking cases lately reported by Dr. Fox in THE LANCET, and now republished by him in fuller detail, cannot be got over; and no future experience can deny that there must have been some successful art in the management of cases which under all other methods have ended in death. *Un fait ne se nie pas.* Dr. Fox can defend himself far better than I can defend him, but I would only urge those who very properly withhold their faith to remember that these cases of his do not stand alone. In England, the land of its birth, the water-treatment of fever is as yet little known; but those who are familiar with German literature are aware that an immense body of experience has been gathered together on this subject by such men as Brand, Jürgensen, Liebermeister, Immermann, Ziemssen, Senator, and many others—men of undoubted skill and good faith, and having large opportunities for observation and practice. Now among all these men there is much difference of opinion, and a difference expressed in no measured terms; but it is a significant fact that there is no difference of opinion as to results. Senator and Liebermeister dispute vigorously the precise way in which the results are obtained; but it enters the brains of none to question the effects of cool bathing in fever, or to doubt its power of saving life with almost miraculous success. It is not a fair way of dealing with such work as theirs to bring forward isolated examples of failure—examples, too, not infrequently founded upon imperfect observations, or even upon mere hearsay. Among other correspondents, Mr. Churton, of Erith, wrote me a kind letter mentioning two cases in which bad results had followed the cold-water treatment.* These were both cases of enteria, but were not either of them under the care of Mr. Churton himself, nor have I any careful account before me of their course before and after the treatment. No doubt, however, the profession will pause, and very properly, before applying what seems to be an heroic treatment; and will claim, in the interests of the public, to know very clearly what they are about before they undertake it. And this the more as I think we must freely admit that, like a sharp sword, which must be in the hands of a finished swordsman, so the "cold-water treatment" is capable of doing much mischief in the hands of the rash or unlearned. For this reason I venture further to occupy the columns of THE LANCET with these and the following remarks.

For example: I cannot conceive anything more desperately risky than the casual plunging of a fevered patient into a tub on the mere conclusion of a single visit, or even of one careful consultation. I feel satisfied, both from analogy and from observation, that those physicians are in great measure right who contend that such rapid with-

* To show the uselessness of such fragments of evidence, I may say that on the same day a colleague told me of three cases in which he had obtained the best results, and this too in pneumonia. Mr. Churton's cases were afterwards published in THE LANCET by Mr. Jessett, but with little or no more detail.

drawal of heat is followed by a corresponding or a very considerable increase of heat-production. It is not yet familiarly known that the standard of animal temperature does not by any means represent a uniform production of heat, but represents the difference between the amount set free and the amount dissipated. Heat-production probably varies enormously from hour to hour, but heat-dissipation varies exactly as production varies so long as the balance of the organism is steady; in like manner, if we increase the dissipation, we by the same movement increase the production, in virtue of the action and reaction between surface and interior. This, which is true to demonstration in health, holds probably in great measure in disease also; so that when we abstract heat largely, even in disease, we probably increase production in something like a corresponding ratio, if not actually to the same degree. In plunging a patient with a temperature of 106°, say, into water at 60°, we set up an enormous outflow, the body being quickly reduced, say, to 100°; now, the beautiful adjustment of the body being lost, we certainly do not see a continual adequation of heat-production, but instead of numerous and infinitely small compensating oscillations, we seem to get fewer and larger oscillations, so that the organism, when removed from the bath, tends to "react"—that is, to swing back to, and even beyond, its former place. Ziemssen seems to have seen this difficulty more clearly than any of the writers on the subject, and to have drawn from it the practical conclusion that if we are to modify reaction we must modify our withdrawal of heat, and rather coax than compel the organism to enter into another equilibrium. Hence he lays down a rule with which I cordially agree—namely, that the withdrawal of heat must be the slowest possible for the due attainment of our end. We know that a heat of 104° is slowly killing the intimate tissues of the body and arresting molecular movement, and that a heat of 106° is doing this rapidly. It is clear, then, that we must bring the body below this point; but this may be gained by using baths of a temperature far higher than 60°. Theoretically, it would seem sufficient to use a bath of 100°, and to cool it artificially during use to about 96°; practically, however, the temperature falls so slowly as to be scarcely perceptible when the patient is placed in a bath of 100°. I still think, however, that a bath of this temperature, which when fully prepared will stand but little above the normal blood-heat, is the best for a commencement, and that its temperature should then be kept down, and, indeed, slowly lowered during the immersion of the patient. This lowering must depend upon the state of the patient; but a long immersion and a slow lowering is in all respects, I am sure, more desirable than a short immersion and a rapid fall. If the patient can bear an immersion of an hour, or even of two hours, the lowering may be made very gradually, and need not be carried below 80°. On removal from such a bath, the further diminution of temperature which generally succeeds the immersion will not be followed by a violent reaction—that is, its effects, more slowly induced, will be more permanent. In addition to this treatment directed to increase the dissipation of heat, I always endeavour to prevent its rapid reproduction by administering quinine in repeated doses of from five to twenty grains, according to circumstances, as advocated by Professor Binz.

The next point I would urge is the continued presence of a medical man and the incessant use of the thermometer. No case can really be counted as evidence either for or against the bath treatment in which the thermometer was not watched as incessantly and as anxiously, during the whole treatment, as the steam-gauge of a rotten boiler. To speak nearer to the point; the doctor cannot take an observation, order a bath, and wait to take another until his next visit. The whole treatment must be managed with the utmost precision, and all tendencies to shiver or syncope should be watched by a skilled observer, or irreparable harm may be done in five minutes. No farther reasons need be urged on this important point; but I am satisfied, if more reasons are not wanted, that practical warnings, on the other hand, are much wanted, and will be needed more and more if the bath treatment becomes popular. If modern medicine is to be precise, and if its criticism is to be equipped with keener weapons, the awkward truth will begin to stare us in the face that much more will be required of us than the casual routine of the past.

My own experience of cerebral rheumatism—that is, of rheumatism marked by temperature so high as directly to disorder and oppress the encephalon—is somewhat large, considering the rarity of the disease. Out of about twelve cases under my care, two only have recovered. The first case of recovery occurred about six years ago, in the practice of my friend Mr. Scattergood of Leeds, with whom I saw the patient. The patient was a strong, temperate young man of about thirty years of age. His rheumatism at first was mild, and a consultation was called only for the purpose of watching the heart. My few visits soon ceased, but Mr. Scattergood then spoke to me anxiously about obstinate wakefulness which had set in. Upon this followed delirium and spasmodic motor disorders of great violence, but fortunately not associated with a tendency to loss of consciousness or to coma. The temperature, fortunately, never exceeded 104° during a very anxious period of some days' duration. Morphia controlled the delirium and the muscular violence in a remarkable degree, and we believed that it was only by the incessant use of this drug that life was saved. My second case occurred in September last, and recovery was in this instance due, I doubt not, to the withdrawal of heat—a plan which I adopted in accordance with my previous use of this means in other fevers of high temperature, and with the results obtained by our German brethren. I was called to the patient after the publication of Dr. Wilson Fox's cases, but I had not seen his papers as my call occurred almost immediately upon my return from a holiday in Switzerland, during which time no medical journals had fallen into my hands.

I had also made use of the same treatment in a case of "cerebral rheumatism" under the care of Mr. Carter, of Chapeltown, near Leeds, but without success. I was called to the case late in the evening (Mr. Carter was, unluckily, out of the way); the patient's temperature was then 111°, and his state comatose. The cold bathing which I ordered and did my best to secure was most probably imperfectly carried out; at any rate, the patient died eight hours afterwards, without being seen again by either of us.* My case of last September was more fortunate in its results.

Dr. ——, a middle-aged man in large practice beyond Keighley, was under the care of Dr. Cockcroft, of Keighley, when I was called to him on account of the symptoms of "cerebral rheumatism," which had supervened upon an ordinary attack of rheumatic fever without heart complication. From the 11th to the 14th of September his state had gradually become very serious; sleeplessness and alarming head symptoms had set in. On the 13th there had been incoherence and delirium; no true sleep for some days; and there was an increasing tendency to coma. Under these circumstances, on the evening of the 13th Dr. Cockcroft had shaved the head and applied large quantities of ice very freely to the head, forehead, and nape. This application had been followed by a slight but decided improvement. Hitherto no temperatures had been taken. I saw Dr. —— on the afternoon of the 14th in consultation with Dr. Cockcroft, Mr. F. Greenwood, and Dr. ——'s assistant. The patient was then unconscious and delirious in a low and muttering way, his countenance turgid and oppressed, his pulse 130, and his temperature 105·8°. There was no inflammation of the joints or heart. This condition was reported to me as one of slight improvement, and I had little doubt that the temperature had been lowered by the free use of the ice. While obliged to give the gravest prognosis, I gave my full adhesion to the plan commenced already, and urged, on the grounds before explained, that the withdrawal of heat should be systematically carried out under the guidance of the thermometer. As plenty of ice was at hand, and the use of a bath not so convenient, it was determined to fill wide-mouthed bottles with ice and lay them along with the patient in bed. I think six bottles were so applied at first, and their number modified subsequently according to the temperature. The ice was also continued in a large bladder covering the head and neck, and dripping a good deal about the pillow. After settling all these details and others of less immediate interest, I took my leave. Mr. Greenwood and the patient's assistant remained in the house and superintended all the proceedings, skilled supervision being absolutely necessary in this case. Mr. Greenwood kept and forwarded me the report of its progress, and I here set down extracts from his diary. At 6 P.M. (about

* My own criticisms apply in condemnation of my own practice on this and on more than one other occasion when my experience was less.

three hours after the commencement of the full ice treatment) the temperature was reduced to 102°; at 7 it was 101·4°; at 11 it was 100·2°, and at this time the patient fell into a quiet sleep of four hours' duration, only broken by the occasional administration of food. The bottles were continued more or less according to the fluctuations of the thermometer during the day and night; and I may pass on to Sept. 15th, 6 A.M., when the temperature was 99·4°. At this time the patient was intelligent enough to complain of rheumatic pains. During the remainder of the 15th the temperature fluctuated between 100·2° and 101·2°, the ice being regulated accordingly. He had "a very fair sort of night," and I may sum up the observations of the next five days by saying that the temperature was kept down to points between 100·2° and 100·8°. Sleep was not repeated in the same satisfactory way; there was much exhaustion and therewith restlessness. In addition to the usual stimulants, morphia draughts and chloral were continuously tried to relieve this restlessness, but produced only short disturbed dozes, with starting, moaning and muttering, and stertorous breathing. It was not thought desirable therefore to push the draughts. I should have added that during all this time, in addition to the ice bottles, the patient was regularly shifted from one bed to another, and sponged from time to time with cool water. No medicine was taken. On the 19th these symptoms of exhaustion began to pass off, and the hard fight was continued with renewed hope. On the 21st the temperature was easily kept to 99°—100°, and farther improvement was visible. During the next few days less and less ice was used until the 25th, when a steady temperature of 98°—99° was easily maintained without ice, and no more regular observations were made. From the 21st, indeed, the improvement was steady and satisfactory, and the patient entered on the 25th into a convalescence which has since progressed favourably.

In this case, although the applications were very cold, on the other hand their application was partial; nevertheless, I am still disposed to hold that a complete immersion in warm water is better than a partial application of very cold water or ice, except in the coma of hot scarlatina, when douches of very cold water to the head and neck are of great service.

Leeds, Dec. 1871.

REMARKS ON STONE IN THE BLADDER.

By W. F. TEEVAN, B.A., F.R.C.S.,

SURGEON TO THE WEST LONDON HOSPITAL, SURGEON TO ST. PETER'S HOSPITAL, LATE LECTURER ON ANATOMY AT THE WESTMINSTER HOSPITAL.

(*Concluded from page* 847.)

NEXT as to lithotomy. We may briefly say that every case which is not fit for lithotrity is proper for lithotomy. It may be, however, that every now and then a case may present itself in which the propriety of any operation may be doubted; but such a case must be extremely rare. If, then, it be resolved to cut out a stone, what is the best method to adopt? Some time ago I instituted a series of experimental inquiries into the state of parts after operation on the dead subject. The specimens were exhibited by me at the Pathological Society, and the following were the results which I arrived at. (See Path. Soc. Trans., vol. xvii., p. 186.)

1. If the tip of the forefinger be introduced into the prostatic urethra, either from the bladder or through the membranous urethra, it will be found that it will only admit the terminal joint of the forefinger without laceration.

2. If the introduction of the forefinger be continued, the mucous membrane splits horizontally as the second joint is passing through. The urethra splits in the roof because the convexity of the joint is pressed against that part. In lateral lithotomy the incision into the prostate prevents laceration of the roof of the prostatic urethra.

3. If a stone, half an inch in diameter, be extracted through a prostate in which no incision has been made, the mucous membrane of the floor of the urethra is lacerated, and the prostate slightly torn; the capsule remains perfect, but the orifices of the ejaculatory ducts are often with difficulty recognised.

4. If a calculus, half an inch in diameter, be extracted through a prostate which has been partially incised, as in lateral lithotomy, the capsule and the orifices of the ejaculatory ducts remain perfect.

5. Stones upwards of half an inch in diameter, when extracted by the median operation, lacerate more or less the prostate and its capsule, and obliterate the orifices of the ejaculatory ducts.

6. Calculi of one inch in diameter and upwards, when extracted through a prostate which has only been partially incised, in the lateral operation, lacerate the gland and its capsule completely in a direction downwards and outwards, and obliterate the orifices of the ejaculatory ducts.

7. If a stone be extracted through *an aperture made by cutting, and not by laceration, then the orifices of the ejaculatory ducts can always be distinguished.*

8. When a calculus is extracted from the bladder by means of a limited incision and subsequent so-called dilatation, either in lateral or median lithotomy, there is always more or less eversion of the gland—that is, in such cases the stone has a tendency to enucleate the gland from its capsule in a direction forwards.

Thus, therefore, only a very small stone can be extracted through a partially incised prostate, without completely lacerating the gland and its capsule.

The specimens of bladders and prostates after lithotomy which I have exhibited show that after an ordinary-sized calculus has been extracted by lateral or median lithotomy the prostate is always found split in two, the halves being held together by a fibrous remnant of the capsule about half an inch broad.

Some persons might possibly object to deductions drawn from experiments on the dead body, and say that results obtained after death must be very different to what happened after lithotomy on the living; but it must be borne in mind that the mechanical properties of the fasciæ are not altered for some time after death, and therefore experiments made a few hours post mortem afford results similar to those that would have ensued in the living. I have also made a personal examination of all the pathological museums in London, and have obtained the following facts:—

1. Out of the many specimens of bladders and prostates after lithotomy, there is no unequivocal specimen which shows that an ordinary-sized stone can be extracted through a medium-sized prostate by means of the limited incision and subsequent so-called dilatation without complete rupture of the prostate and its capsule.

2. That in extracting ordinary-sized calculi through the prostate, not only are the gland and capsule completely ruptured, but the rent extends into the bladder, as far usually as the orifice of the left ureter.

3. That where there has been much laceration or bruising of parts, the orifices of the duct are no longer to be distinguished.

4. That there are several bladders and prostates of persons who have lived upwards of ten years after lateral lithotomy, and in each specimen the cicatrix can be seen extending into the bladder nearly to the orifice of the left ureter.

5. That a fistula in the bladder communicating with the rectum is not an uncommon occurrence after lithotomy—the result of bruising or laceration,—and would not appear to be of any moment.

6. That in ordinary lithotomy the prostate is completely split into two, the halves being held together by a remnant of the capsule about half an inch broad.

7. That the most frequent cause of death after lithotomy would seem to be the extensive suppuration set up by the bruising and laceration of parts, followed by phlebitis and pyæmia.

8. That infiltration of urine, after lithotomy, must be regarded as a surgical curiosity.

It will thus be seen that whether we examine cases of lithotomy on the living or dead, the same conclusions will be arrived at—that an ordinary-sized stone cannot be extracted through an ordinary-sized prostate by means of a limited incision and subsequent so-called dilatation without complete rupture of the gland and its capsule. I may here

remark that Professor Ellis has for a great many years past practically demonstrated to his class that there is no such thing as dilatation of the prostate, and that what surgeons call dilatation is in reality complete laceration. A subject of very great importance, which has not yet received any attention, is the occurrence of impotence after lithotomy. I have seen several such cases. Impotence results from the laceration of the mucous membrane around and lining the orifices of the ducts, and their subsequent plugging; and my objection to the median operation is founded on this ground, for in it the mucous membrane is usually lacerated in the floor of the urethra, and the prostate occasionally split into halves in the paths of the ducts, thus interfering with their integrity.

The practical conclusions at which I have arrived are—firstly, that when lateral lithotomy is performed the stone ought always to be cut out, and not torn out; and, secondly, that the median operation is not justifiable for the extraction of calculi which are upwards of half an inch in diameter, for if such stones be removed by that process obliteration of the orifices of the ejaculatory ducts, and permanent impotence, will ensue. Dr. Richardson has stated, from his inquiries, that the median operation is attended with a larger mortality than lateral lithotomy. In boys lateral lithotomy is so successful that no possible advantage can be gained by substituting for it the median operation, inasmuch as that procedure cannot be accomplished in the child without lacerating the very part we ought to avoid—the floor of the prostatic urethra.

Now for a few words regarding lateral lithotomy. (1) The sound ought to have a very short beak, not longer than one inch. The shorter the beak the greater the facility for exploring the bladder. A sound shaped like a catheter will just as often miss a stone as hit one. (2) I use a rectangular staff made after my own design: the vertical part is short, the handle large, and the groove on the horizontal part is continued upwards on to the vertical piece for one inch. The staff ought to be held with both hands; the lower one resting on the pubes. By this method an amount of fixity can be given to the staff unattainable by any other means. I learnt this procedure from Dr. Henry Dick. (3) Some surgeons use a narrower bladed knife when operating on children to what they do in the adult; but this is manifestly wrong, for inasmuch as the same sized instrument, the left forefinger, is introduced in either case, there ought to be no difference in the size of the knife. Most of the accidents that have occurred in connexion with lithotomy have arisen from a difficulty experienced in getting into the bladder in children. This has taken place from using a very narrow-bladed knife in order to make a small internal incision into the bladder; the result being that the opening made was totally insufficient to admit the forefinger, the bladder therefore being pushed back into the pelvis. (4) In children I never use a forceps, but extract the stone with the forefinger only. It can be made to slide out of the bladder by simply pressing on it. Another way I have, if I experience any difficulty, is to get the left forefinger under the stone, press it firmly against the bladder at the same time that the right hand is placed above the pubes. In this way the left forefinger can make the stone slip out. For adults I use a simple open polypus forceps. It will never let a stone escape. (5) The external incision ought to commence low down; by this means we wound less vascular parts, and there is but little bleeding—all-important in infirm old men. (6) The internal incision ought to be free, for there is no such thing as dilatation of the prostate. The bladder must be cut into, not merely pierced. (7) I have never used a tube after lithotomy; for the best of all reasons, that I have not seen its usefulness in the practice of others, and I know that a man has lost his life through its employment.

The above conclusions I have arrived at from carefully watching the practice of other surgeons, from my own experiments and investigations, and, lastly, from my own experience, based on thirty-one cases of lithotomy and lithotrity, all of which have recovered except two.

A MEDICAL CONGRESS.—The medical profession of Lyons are discussing the propriety of holding a congress in that city next year. It is very probable that the project will be carried out.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quam plurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

CASES UNDER THE CARE OF MR. CROFT.

Disease of the Tarsal Bones simulated by Gummatous Tumours.—A woman, fifty-five years of age, was admitted with supposed disease of the tarsus, and her case appeared at first sight to be one likely soon to require amputation. But a clue to the real cause of the appearance of the foot was afforded by a number of circular scars with which the legs are pitted; these she attributed to an attack of small-pox, but they appeared much more like the traces of syphilitic ulceration. After the foot had been poulticed for a time, a number of yellow masses, presenting all the appearance of gummatous deposits, made their way through the integument. The foot is now resuming its natural dimensions, and the general health seems to be much benefited by a course of iodide of potassium.

Extensive Superficial Abscess in the Back, extending to the Axilla and Pectoral Region, following a Bruise.—A stout woman, fifty-five years of age, sustained, through a fall down-stairs, considerable bruising of the back. Shortly afterwards she presented herself at the hospital with a subcutaneous abscess, which extended from the upper border of the left scapula downwards over the whole of the left half of the back, and forwards by the axilla to the margin of the pectoral region. It was opened antiseptically, under carbolic curtains, opposite the last rib in the back, and, anteriorly, near the lower margin of the pectoral muscle. It was, however, found that the bandages which were required to maintain the antiseptic condition of the wounds interfered with the free discharge of the pus; poultices were therefore applied instead. The abscess is now diminishing in size, and the patient's general health is good. It should be remarked that the exploratory use of the probe has failed to detect any exposed bone; that the pus has never been evacuated in gushes corresponding to the respiratory movements; and that the results of auscultation are perfectly satisfactory.

Deeply situated Lump in the Right Loin with Vomiting; question of Hernia.—Another woman was admitted with vomiting, a furred tongue, and quick pulse, and, on examination, a rope-shaped swelling was felt to be deeply situated in the right loin. She stated that while lifting a weight a few days previously she had felt something give way internally. This account, together with her symptoms, suggested that stricture of some portion of the intestine had taken place within the abdomen. By the following day, however, the lump was no longer to be felt; the vomiting had ceased, and a lumpy motion had been passed. Similar evacuations have taken place regularly from that time. A day or two after admission a swelling made its appearance over Scarpa's triangle, and continued to increase, with redness of the integument. When we saw the patient, on the tenth day after admission, the swelling yielded distinct fluctuation, and emitted, on being incised, a copious flow of pus. Some vomiting had occurred the night before, and, on exercising deep palpation in the right loin, a thick cylindrical mass could be made out. Mr. Croft remarked that the inflammation which had occurred round the femoral glands had probably arisen in consequence of the strain of which the patient had given an account, and suggested that the lump in the loin and the vomiting were probably to be attributed to an accumulation of faeca matter in the colon.

Disease of the Ankle-joint; recovery with movement, without operation.—A man, twenty-nine years of age, came under Mr. Croft's care with an opening on either side of one ankle-joint, through which a purulent discharge was maintained, and both of which freely admitted the introduction of a probe between the articulating surfaces of the tibia and astragalus. The joint was kept at perfect rest by means of a splint adapted to the shape of the foot and ankle, and the patency of the openings was maintained as long as any discharge remained. When we saw the patient the fistula at either ankle had closed, and the joint admitted of free and painless motion.

KING'S COLLEGE HOSPITAL.

OPERATIONS ON THE 16TH INSTANT.

(By Sir WILLIAM FERGUSSON.)

Operation for Internal Hæmorrhoids.—The patient was a man of middle age, who had suffered from internal hæmorrhoids, with prolapsus, for a space of fourteen years. When he was placed on the table, a mass, consisting of three large hemispherical protuberances, and several smaller ones of a dusky-red colour, was projecting from the anus. The former were selected for operation. The procedure adopted by Sir Wm. Fergusson was that of ligature. A threaded needle was passed through each of the three prominences, the halves of which were then separately tied with the portions of the divided thread. Some of the loose skin around the anal aperture and the summits of the ligatured hæmorrhoids were then removed with scissors. Before the removal of the patient a suppository and the prolapsed mass were, at the same time, returned within the anus. The operator attached importance to the use of the scissors just indicated, as tending to remedy, by consequent contraction, the unnatural laxity of the sphincter ani which long-standing prolapse inevitably produces, and as lessening, by removal of some of the thickened skin and mucous membrane, the chance of the formation of new hæmorrhoidal masses. The surgeon, he observed, errs more often in the sparing than the free use of the scissors in similar cases.

Disease of both Hips; Tenotomy; question of further operation.—A delicate-looking boy, suffering from disease of both hips, was next brought into the theatre in order that his condition might be carefully examined under chloroform. The right thigh was flexed and adducted, and the trochanter stood out prominently over the dorsum ilii. There were no sinuses or scars, but a small chronic abscess was to be felt beneath the skin of the anterior aspect of the upper third of the thigh. Movement at the knee-joint was quite free. The left thigh was somewhat less flexed than the right, and the head of the bone had not left the socket, but several pus-discharging sinuses communicated with the joint. On this side also there existed no impediment to free extension of the leg. Sir W. Fergusson observed that the disease of the right hip had completely subsided after permitting, among other mischief, the escape of the head of the femur on to the dorsum of the ilium, which had been followed by a degree of flexion and adduction which every appliance resorted to had failed to reduce. The disease of the other hip had followed a somewhat different course, but the patient was nevertheless reduced to the deplorable condition of not being able to plant either foot on the ground. Sir W. Fergusson then divided the tendon of the right adductor brevis, and the inner edge of that of the pectineus, with marked benefit to the position of the limb; but the thigh was not well brought down from the trunk until the tendon of the sartorius at the anterior superior spine of the ilium had been likewise divided. He reserved further interference for a future occasion; but expressed a hope that by a future operation—probably excision of the heads of the femora—the use of both limbs would be in a measure restored.

Mr. HENRY SMITH operated on a girl for *fissure of the lobule of the ear*, by paring the edges of the gap and bringing them together with two hare-lip pins and figure-of-8 sutures, as for hare-lip. The deformity had arisen by an earring ulcerating through the lobule.

PROVINCIAL HOSPITAL REPORTS.

LINCOLN COUNTY HOSPITAL.

FRACTURE OF THE SKULL; COMPRESSION; USE OF TREPHINE; RECOVERY.

(Under the care of Mr. BROADBENT.)

WE are favoured with notes of the following cases by Mr. H. D. Male, house-surgeon:—

The injury from which this patient suffered was sustained by alighting on his head in a fall from a runaway horse. He was a youth eighteen years of age. On admission there were found severe and extensive contusion of the scalp, with effusion of blood, principally on the right side; considerable bruising of the right eyelid; and subconjunctival effusion of blood. There were also symptoms of concussion, with a feeble pulse of 40 beats. The respiration and state of the pupils were natural. He was very torpid, but intelligent for the moment when roused. In the course of the day he was frequently sick; the vomiting not being followed by reaction. It became more difficult to rouse him; the pupils became contracted and inactive, the pulse 60, and weak, and the extremities cold. Directions were given for a purge to be administered, the head shaved, and an ice-bag applied. A very gradual improvement was afterwards maintained until the sixth morning, when there occurred a convulsive attack of two minutes' duration. Four hours later a more prolonged fit followed, which was marked by twitching of the right side of the face and violent movements of all the limbs. The seizure left him comatose with stertorous breathing and dilated pupils. He shortly afterwards passed urine involuntarily. Mr. Broadbent, having decided to attempt relief of the patient's condition by trephining, made an incision into the swollen scalp on the right side, and turned out about half a pint of clot. The scalp was then detached from the right half of the frontal bone, the anterior half of the right parietal, and the squamous portion of the temporal bone of the same side. A fissure was found to extend across the right frontal eminence, downwards towards the orbit, and backwards through the parietal bone towards the ear. The trephine was applied over the fracture immediately behind the right frontal eminence. No depression of bone, or pus, or blood between the skull and dura mater was found, but a large quantity of bloody serum escaped through the pin-hole in the dura mater. Three hours after the operation was undertaken the patient appeared intelligent, and took a pint of milk with a little bread; his pulse was 80. On the following day he passed his evacuations voluntarily, was quite intelligent, and partook heartily of bread and milk. He continued to make steady improvement until, on the ninth day after the operation, erysipelas supervened, with œdema of the scalp, redness, and swelling of the face, bullæ on the eyelids and lips, vomiting, a furred tongue, and a pulse of 100. The patient was ordered an effervescing mixture of citrate of potash and the mistura spiriti vini gallici. Eight days later the erysipelas had quite passed off, and the scalp wounds were granulating rapidly. The patient was discharged in perfect health ten weeks after admission.

EXCISION OF THE OS CALCIS.

(Under the care of Mr. SYMPSON.)

J. H——, aged nine, was admitted with considerable swelling and hardness about the left heel; two sinuses led down to carious bone, and emitted a free discharge of pus. The affection had commenced about two months previously with abscess. The general health was good. Mr. Sympson excised the os calcis after Mr. Holmes's method. The bone was found to be carious throughout. The articular cartilages, and, to a less extent, the opposed surfaces of the astragalus, were thinned and partially eroded. After the removal of the entire os calcis, the diseased articular surface of the astragalus was scraped, and the limb placed on an inside splint with a foot-piece. By the thirty-third day the wound had healed in the greater part of its extent. After that the patient's recovery was delayed by a sinus at either end of the longitudinal wound in the heel, which maintained for a time a considerable discharge. A weak solution of sulphate of zinc was daily injected, and a

pad was applied in such a manner as to exert pressure on the deeper portion. The patient had recovered, with flexion and extension of the ankle-joint, in about three months after the date of the operation.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, DECEMBER 12TH, 1871.

T. B. CURLING, F.R.S., PRESIDENT, IN THE CHAIR.

ON THE PATHOLOGY OF SCARLATINA, AND THE RELATION BETWEEN ENTERIC AND SCARLET FEVERS.

BY JOHN HARLEY, M.D. LOND.,
LATE PHYSICIAN TO THE LONDON FEVER HOSPITAL, ASSISTANT-PHYSICIAN AND JOINT LECTURER ON PHYSIOLOGY TO ST. THOMAS'S HOSPITAL.

IN the first portion of the communication the author treats of the morbid anatomy of scarlatina, and gives the details of twenty-eight cases of his own observation. Of these, the greater number died on days ranging consecutively from the third to the fifteenth; the remainder died on the seventeenth, twentieth, twenty-fourth, twenty-ninth, thirty-third, forty-first, and sixty-ninth days. More or less albuminoid and fatty degeneration of the kidneys existed in six of the cases, and these died on the fifteenth, seventeenth, twentieth, twenty-ninth, forty-first, and sixty-ninth days respectively; the kidneys were healthy in the remainder. The pathological changes common (with a few exceptions depending chiefly upon the time of the decease of the patient) to all the cases are as follows:—

1. *The formation of fibrinous clots in the heart and great vessels during a pyrexial condition at any period of the disease.* This is the commonest cause of death during the early stage of the disease. It is indicated during life by the reduction, often very sudden, of a full and bounding pulse of 120 to a dribble of 150 or 160 almost imperceptible impulses; and the failure of the heart's action is commonly attended with orthopnœa and delirium from obstruction of the pulmonary and cerebral circulation. On opening the body very soon after death, before it has lost a degree of temperature, and while the blood is therefore hot and fluid, the right heart will be found distended partly with dark blood, which coagulates on exposure—and partly, sometimes chiefly, with a large, firm, white, bifid clot, continuous through the auriculo-ventricular opening. Each portion is interlaced with and firmly adherent to the tendinous cords and outstanding muscular bands of the cavity in which it lies; and each portion sends a rope-like prolongation into the orifice of the great vessel connected with the cavity in which it is situated—the one entering the ascending cava, and the other the pulmonary artery. These processes frequently occupy half the area of the blood-tubes, and are prolonged in ramifications corresponding to those of the bloodvessels, upwards into the cranial cavity, and laterally into the lungs. On withdrawing these partial casts of the great vessels, they may often be found nine inches long, and to have occupied vessels of the sixth and seventh degree of ramification.

2. *Marked derangement of the hepatic function.*—The bile was examined in 20 cases. In 5 only were the characters of the secretion normal, and in these cases death occurred on the third, fourth, twenty-fourth, forty-first, and the sixty-ninth days respectively—days probably in these particular cases too early for the development, and too late for the persistence, of any great derangement. In the remaining 15 cases the bile was in a deteriorated condition. In two, 10 and 15, the gall-bladder showed decided marks of inflammatory action, the coats being injected, and the mucous membrane rose-coloured. In Case 10 there was a complete absence of bile, the mucous membrane being merely moistened with a few drops of colourless alkaline fluid. In 3 other cases the bile had a natural greenish-brown colour, but it was greatly deficient, as was that of the remaining 10 cases, in solid matters. Thus the specific gravity in none of the 13 cases exceeded 1014, and the amount of solid matter in 1000 grain measures in no case amounted to more than 36·4 grains, or less than one-third of the normal amount. In one case there were only 11·1 grains of solid matter in 1000 grain measures of the bile. In the majority of the cases the bile was turbid from epithelial *débris*, but on standing it became clear and transparent, and resembled pale urine. In all the 13 cases there was a notable deficiency of biliary acids, and in 2 a complete absence. The colouring matter of the bile was present in every case, and as the fluid trickled over a white surface it usually left a bright gamboge coloured track. The contents of the intestines agreed with this condition of the bile. If, as rarely happened, the bowel contained solid fæces, it was of a pale ochre or sulphur colour. But the fæcal matters were commonly fluid, grumous, or flocculent, often slimy, and of a pale ochre colour. Such, also, were the characters of the stools before death in many cases.

3. *General inflammation of the lymphatic glands*, usually confined to those of the neck, but occasionally extending to those of the extremities; of the spleen and mesenteric glands; and of the whole of the solitary and agminated glands of the alimentary canal, but commonly affecting only those of the fauces, and of the ileum and colon. The morbid appearances due to this general inflammation of the lymphatic system were remarkably uniform, and they were observed in every case. The tonsils and solitary glandulæ of the tongue, and the external glands of the neck, were perceptibly affected in every case. In several cases large buboes formed in the neck; in three (15, 21, and 22) these were associated with diffuse cellulitis, and purulent infiltration; and in Case 22 the popliteal and axillary glands and their surrounding connective tissue were similarly affected. In these cases the glands themselves were slow to take on suppurative action, and although they were generally much enlarged and purple, comparatively few had softened centres. The spleen was enlarged in 23 cases, and in five of these (Nos. 9, 12, 14, 25, and 26) it was increased to nearly twice its ordinary bulk. In two others it was not examined; and in the remaining two cases (10 and 27, in which death occurred on the fifth and sixty-ninth days) it was of the normal size. The mesenteric glands were swollen and inflamed in every case. In Cases 2, 6, 7, 8, 12, 19, 22, and 24, the mesentery formed a thickened, heavy, lobulated mass, and many of the glands were as large as walnuts or pigeons' eggs. In Case 13 (death on the seventh day) there was only slight swelling of these glands, whereas in Cases 26 and 28, in which death occurred on the forty-first and sixty-ninth day respectively, the enlargement still persisted. Even the small glands in the attached borders of the transverse and descending mesocola were found purple and turgid. The solitary glandulæ of the ileum were in a condition of psorentery—i.e., forming white granular and more or less hard elevations, like a thick sprinkling of large sago-grains upon the mucous membrane—in fourteen cases. In six other cases, the solitary glandulæ were only partially affected, the swelling was more diffuse, the glandulæ being only moderately raised, but they were always deeply injected, and in some cases had an abraded appearance. In three cases, in which death occurred on the eleventh, seventeenth, and sixty-ninth days of the fever, there was only very slight swelling of a few of these glands; and in four cases, in which death occurred on the fifteenth, twenty-fourth, twenty-ninth, and thirty-third days respectively, the glandulæ were altogether unaffected. The agminated glands of the ileum were more or less swollen and inflamed in every case but one (25), that in which death happened on the thirty-third day. In Case 21 (death on the seventeenth day from suppurating buboes in the neck), there was only very slight swelling. In all the other cases the results of inflammatory action were decided, and in many cases severe. The glands were commonly raised the eighth of an inch above the surrounding mucous membrane, than which they were always more deeply injected. In the greater number of cases the difference was very striking, the mucous membrane being generally pale, and sometimes thin and bare, while the agminated glands were of a vivid red or claret colour. The inflammatory action was usually confined to the glands in the lower third of the ileum, but in three or four cases the whole of the patches from the jejunum downwards were affected. In some of the larger glands isolated foci of inflammatory action were occasionally observed. The interfollicular ridges were often the eighth of an inch wide, giving to the paler glands a spongy appear-

ance; but these ridges were as often vascular, with fine hair-like turgid vessels, and in some cases they were prolonged into folds a quarter of an inch in length (see Cases 3, 6, 7, 8, 12, and 15, in which death occurred on the third, fourth, fifth, sixth, and ninth days). In two or three cases an almost bleeding gland had a softened abraded surface. The mucous membrane of the ileum was itself severely inflamed in two or three cases, and was covered by a thick, adherent layer of white opaque mucus. The solitary glandulæ of the large intestine were enlarged and inflamed in eight cases (Nos. 4, 6, 7, 9, 16, 17, 19, and 22). In one of these (9) there was acute desquamation of the mucous membrane of nearly the whole of the bowel. In another case (27), the cæcum was severely congested. In those of the remaining cases in which the large intestine was examined, it was quite healthy.

After taking the above described pathological conditions into one general view, it appears that there is an increase of fibrin in the blood during an attack of scarlatina, and that death is likely to occur during the first week from its deposition in the heart and great vessels; that the condition of the biliary function is such as to lead to an outbreak of diarrhœa, if this has not already happened; that a latent enteritis, sometimes general, but commonly only affecting the solitary and agminated glands, exists in a high state of development during the pyrexial stage of scarlatina, and ready to declare itself openly upon very slight provocation; that this intestinal affection is only a part of a general lymphatic inflammation which involves the whole of the lymphatic system, including the mesenteric glands and the spleen, in one common action; and, further, that this condition may persist in some degree, either in the bowel or the mesentery, as late as the sixty-ninth day, and without any outward indication of its presence throughout.

From this view *one general conclusion* is inevitable—viz., that the pathological changes accompanying an ordinary attack of scarlatina include all those of the first stage of enteric fever, and that the transition from one disease to the other is but a natural pathological sequence, readily determined by any cause which may increase the intestinal irritation.

The proofs of this interchange, or sequence, constitutes the second part of the subject, and contains accounts of the following original observations:—

Case 29. Scarlatina. Convalescence on the thirteenth day. Relapse during sojourn in the hospital, with scarlet rash on the twenty-eighth day; fully developed enteric fever on the thirty-second day; and convalescence on the fiftieth day.

Case 30. Scarlatina. Convalescence on the nineteenth day. Relapse during sojourn in the hospital on the thirty-first day, followed during the next ten days by fully developed enteric fever; convalescence on the sixty-fourth day.

Case 31. Scarlatina. Convalescence on the thirteenth day. Discharged from the hospital on the twenty-third day. Supervention of enteric symptoms on the thirty-seventh day. Readmission in a typhous condition, and suffering from grave enteric fever on the fifty-eighth day; convalescence on the eighty-first day.

Case 32. Severe attack of scarlatina. Convalescence on the twenty-seventh day. Slight relapse, with a trace of albumen in the urine, on the thirty-second day. A second relapse on the forty-first day, followed by diarrhœa, with hæmorrhage from the bowel and pneumonia; and death on the fifty-first day.

Case 33. Scarlatina. Convalescence on the twentieth day. Discharge from the hospital on the thirty-first day. Readmission, with fully developed enteric fever, on the fifty-sixth day; and death on the sixty-fourth day. Extensive ulceration of Peyer's patches.

Case 34. Scarlatina. Convalescence on the twelfth day. Relapse during sojourn in the hospital on the twenty-seventh day. Development of enteric fever on the thirty-second day; and death on the fiftieth day. Extensive ulceration of the solitary and agminated glands.

The author next gives a series of cases to illustrate the coexistence of the two diseases; and he concludes as follows:—"The intercurrence or sequence of scarlatina and enteric fever has been frequently noted, and always attributed to accidental coincidence. In my article on 'Enteric Fever' in Reynolds's System of Medicine, I have expressed my convictions on this subject; and so strong were they in favour of the natural sequence of the diseases at the time that work was publishing, that I find I have in the proof-sheet called my contagious variety of enteric fever 'abdominal scarlatina.' I abandoned the term then because it seemed to me that the evidence which I had adduced to show the close relationship implied in it was insufficient to convince those whose opportunities of examining the question in detail were rare, and whose scholastic principles moreover would be shocked by such confusion of two diseases which are commonly considered to be specifically distinct. Now, however, that I am enabled to lay before the Society such full and complete evidence as is contained in the preceding observations, I will submit this term to the profession as a definite description of a disease which the practitioner will occasionally meet with. Nor will I allow this opportunity to slip me, but in the interests of truth will ask my fellow-labourers to go with me one step further, and to discard those transcendental ideas of enteric fever which make of it a disease *per se*, and to open their minds to receive what nature will then soon teach them—viz., that enteric fever and all its attendant phenomena may occasionally become a part of almost any other more general inflammatory condition, specific or simple."

MEDICAL SOCIETY OF LONDON.

MONDAY, DECEMBER 4TH, 1871.

DR. ANDREW CLARK, PRESIDENT, IN THE CHAIR.

Dr. BROADBENT exhibited morbid specimens from a case of Apoplexy following Disease of the Kidney. One kidney had undergone granular degeneration, the other was not much changed. The heart was hypertrophied, and in the left hemisphere of the brain there was a large irregular cavity. The minute arteries were also hypertrophied. The woman had recovered from a former attack of hemiplegia, and had gone on pretty well until six months ago, when she suffered from general weakness, pain in the head, indigestion, &c. The pulse gave at first an impression of being feeble, but it was not so—it could be rolled under the finger, and when pressed on above continued to give a thrill to a finger placed below. The area of the heart's dulness was increased, the apex beat below and to the left of its usual situation. At the interventricular septum the first sound was reduplicated; at the apex the first sound only was heard. The right ventricle produced the first portion of the reduplicated sound; the left ventricle the second, owing to its meeting with a momentary resistance. The patient was pregnant, but did not know it till just before death, as she had menstruated regularly, and was unwell at the time of dying. She was seized with convulsions, coma, rigidity, and paralysis of the left limbs. Hæmorrhage came from the middle cerebral artery, and the cavity was situated external to the motor ganglion and motor tract. Dr. Broadbent thought the rigidity was due to a disturbance, not a destruction, of the motor ganglion and motor tracts. In answer to a question from Dr. Hughlings Jackson, he said that there was no pulmonary apoplexy. The tongue was bitten.

The PRESIDENT remarked that the case was well told, and the points open to discussion were—1. Was the thickening of the arteries due to poisoned blood? 2. Was the reduplicated sound due to the lagging action of the left ventricle? 3. Was rigidity due to disturbance, not destruction, of the motor ganglion?

Mr. WALTER COULSON exhibited two patients with Syphilitic Ulcers cured by Skin-grafting. The first patient had suffered severely for three years and a half from the effects of malignant syphilis. There had been ulceration in the face, loss of a portion of the nose, and one extensive ulcer on the leg. After a variety of treatment without much success as far as the ulcer on the leg was concerned, the man was treated with bark and nitric acid, and the surface of the wound was granulating healthily. The limb was placed in a straight splint, and on October 3rd five pieces of skin were taken from the left arm about the size of a pin's head and transplanted. On October 26th five more pieces were grafted. On November 1st all the five last grafts had taken. On November 20th the ulcer had healed with the exception of a small spot. The second man had been suffering for two years and a half from a large

syphilitic ulcer of the size of a cheese-plate, and had taken seventy grains of iodide of potassium three times a day. On October 3rd skin-grafting was done, as in the first case, with great success, the medicine being left off when the grafting commenced. This plan of treatment was recommended in the chronic stage of the disease, when the ulcer was covered with healthy granulations.

In the discussion which followed,

Mr. JABEZ HOGG recommended bromide of potassium in syphilis.

The PRESIDENT called attention to this, as if it was as useful as iodide of potassium, it was important to know it, as the latter was not always well borne.

Dr. BROADBENT, who had specially experimented in the bromides, said that their action was quite contrary to that of the iodides.

Mr. DE MÉRIC condemned the use of bromides when the iodide could be given. He thought that iodide of potassium was pushed too far, as it interfered with the sexual capacity of the patient. He had advised a little mercury combined with the iodide. He had also transplanted in some cases, but had failed.

Dr. HUGHLINGS JACKSON then gave the particulars of a case of Disease of the Right Lobe of the Cerebellum—Tumour with Cyst. The striking point in the case was the existence of double optic neuritis (observed by Mr. B. Carter, as well as by the author) without obvious impairment of sight. There was severe headache and urgent vomiting. Very remarkable intermissions in these symptoms occurred, the patient seeming to be quite well in the intervals. Later, palsy of both sixth nerves took place, one before the other, and there seemed trifling difficulty in walking, but there was no limb affection. The author remarked on the several symptoms of the case, and particularly urged that diseases of the cerebellum caused neither loss of sight nor deafness. It frequently—if tumour—led to double optic neuritis; consequent on this, blindness occurred in a roundabout way, and, he imagined, through the intermediation of the vaso-motor nerves.

A discussion ensued, in which the President, Dr. Broadbent, Dr. Allen, Dr. Chapman, and Mr. Jabez Hogg took part.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 5TH, 1871.

MR. JOHN HILTON, PRESIDENT, IN THE CHAIR.

THE report by Dr. Douglas Powell and Dr. Theodore Williams on Dr. Squire's case of Tuberculosis of the Lung, which had been checked by quinine two years before the patient's death, was read. The report stated that the supposed tuberculosis of two years ago was probably only an attack of alveolar catarrh. Tubercle was present, but was probably of a more recent date.

Dr. THEODORE WILLIAMS showed, for Dr. Quain, a case of Dilatation of the Arch of the Aorta, with Obstruction of the Left Coronary Artery. The dilatation affected the first part of the arch of the aorta, and was enough to cause insufficiency of the aortic valves. There was much atheromatous degeneration of the vessel, the surface was considerably roughened, and the opening of the left coronary artery was almost completely occluded. The muscular fibre of the heart showed (under the microscope) evident signs of fatty degeneration, but some of this may have been due to post-mortem change, as the examination after death was unavoidably postponed. The patient was a gardener, and had spent much of his time in hot store-houses. The patient complained of anginal symptoms, especially of pain down the left arm. The thyroid gland was slightly enlarged; there was no cardial murmur, but the second sound of the heart was roughened. The patient died in a fainting-fit after vomiting. Dr. Williams drew particular attention to the cause of the disease, which he alleged was the heated atmosphere in which the patient worked. He believed heat to be one of the causes of atheroma, as he had observed it frequently in stokers.

Dr. SQUIRE wished merely to hint that heat involved perspiration, and perspiration involved drink.

Dr. DICKINSON wished to know if Dr. Williams had noticed atheroma to be common in hot countries.

Mr. HULKE asked what was the *modus operandi* of intense heat in producing atheroma?

The PRESIDENT further inquired what was the cause of the pain down the arm?

Dr. WILLIAMS replied that he did not know if atheromatous changes were common in hot countries. With regard to the arm pain, he could give no other explanation than that it was "anginal."

Dr. THEODORE WILLIAMS also showed a Supra-Renal Capsule the seat of considerable disease. It was enlarged, hardened, had been adherent to the kidney, and contained two or three little abscesses. The patient from whom it was taken was phthisical. Before his death he had marked bronzing of the skin, and presented all the features of Addison's disease. At the post-mortem examination, besides the condition of the supra-renal capsules, the lungs were found to be the seat of considerable phthisical changes. They were adherent, and the pleura and lungs exhibited very marked pigmentation. The chief interest of the case consisted in the supervention of Addison's disease in a phthisical subject. Among Dr. Greenhow's collected cases of Addison's disease only two are mentioned as having pigmentation of the lungs or pleura.

Mr. ARTHUR NORTON exhibited a Growth from the Larynx. It was seen with the laryngoscope during life as a white patch just below the left true vocal cord. The glands of the neck were some of them enlarged. It had been diagnosed as an epithelioma, but a microscopic examination of it that evening had caused him to change his opinion, and he now considered it to be a papilloma.

Mr. LENNOX BROWNE wished to know on what clinical grounds it was considered malignant.

Mr. NORTON replied that the diagnosis was arrived at from the general appearance of the growth.

Mr. F. C. CHURCHILL exhibited a Fatty Tumour, as big as a walnut, and resembling a ranula, which had been removed from beneath the tongue of a man aged eighty. It had been there for twenty-two years, but had grown of late, and had given considerable annoyance to the patient. It was therefore removed, and the patient did well.

In reply to Mr. Fairlie Clarke, Mr. CHURCHILL stated that the tongue of the patient was protruded in a straight line.

In Mr. HULKE's opinion, the history of a growth of twenty-two years should have excluded ranula from the diagnosis.

Dr. T. H. GREEN exhibited a case of Interstitial Pneumonia. The patient was a man aged sixty, who had been admitted to Charing-cross Hospital, under Mr. Hancock, with a fractured femur. He had been liable to chronic bronchitis, and an attack of bronchitis caused his death about five weeks after his admission to the hospital. The right lung was found adherent to the pleura. The pleura was very much thickened, especially at the extreme base. The upper lobe was found very much pigmented, and the bronchi and vessels stood out somewhat too boldly. The lower lobe presented a great contrast to the upper. It was hardly pigmented at all, was of a pale-buff colour, and presented very much the appearance of a honeycomb sponge. It was tough, and seemed composed of dilated bronchi and fibrous tissue. There was no sign of pneumonia, and no caseation anywhere detectable. Under the microscope there were found (in the upper lobe) patches of fibro-nuclear growth round the bronchi and vessels, and in the alveolar wall. The new growth seemed to start mainly from the bronchi and vessels, the alveolar wall being comparatively little affected. The lower lobe, to a far greater extent, was pervaded by a fibro-nuclear growth, which, beginning round the small bronchi and vessels, obliterated the alveoli by its extension. The patient had suffered from bronchitis for twelve years, and as a result there was dilatation of the bronchi and an increase of the peribronchial areolar tissue. There was no indication that the change had originated in the alveoli. Fibrous change in the lung as a primary lesion was very rare, and in the present case it had resulted from chronic bronchitis. There was no evidence of pneumonia, and very little of pleurisy, except the thickening of the pleura at the extreme base.

Dr. WILSON FOX regarded this as a rare and almost unique case. Interstitial growth independent of alveolar growth was infinitely rare, there being only three or four undoubted cases on record. The extreme fibrous change in

the present case had probably been produced by compression of the lung by pleuritic effusion, and the anæmia so caused accounted for the marked absence of pigment in the lower lobe. The growth in the present case was mainly from the septa, but there were several patches of catarrhal pneumonia throughout the lung. There was no condition in this case that could have been spoken of as phthisis.

Dr. CRISP exhibited a Cirrhotic Liver and a "Baggy" Stomach. The patient, a lady, had complained of great pain in the region of the cæcum. She was jaundiced, but there was no lack of bile in the motions. At the post-mortem examination the large curvature of the stomach (which was much dilated) was found in contact with the pubes. In the opinion of Dr. Crisp many of the symptoms were due to the displacement of the stomach. The displacement in many of these cases was due to compression by stays. Enlargement of the stomach was not uncommon in the lower animals owing to the forced adoption of a diet which was unnatural to them. He exhibited a very large stomach taken from a mastiff who had been fed entirely upon a vegetable diet.

Mr. SPENCER WATSON remarked that dilatation of the stomach was not uncommon among the lower orders of Irish whose diet consisted mainly of potatoes.

Dr. CRISP also exhibited a Granular Kidney and the Head of a Femur from a case of hip-joint disease. Not only were the original specimens exhibited, but some beautifully-made plaster models as well, which had been most skilfully coloured by Dr. Crisp in imitation of the fresh specimens.

Dr. SIMS showed a very large Liver the seat of malignant disease. The liver was perfectly smooth on the surface, and had been diagnosed as lardaceous. No secondary deposits of cancer were anywhere discovered.

Reviews and Notices of Books.

A System of Medicine. Edited by J. RUSSELL REYNOLDS, M.D., F.R.S., F.R.C.P.L.; Fellow of the Imperial Leopold-Carolina Academy of Germany; Fellow of University College, London; Examiner in Medicine to the University of London; Professor of the Principles and Practice of Medicine in University College; Physician to University College Hospital. Vol. III., containing "Local Diseases" continued.

[CONCLUDING NOTICE.]

DR. WARBURTON BEGBIE'S articles on Colic, Colitis, Dysentery, Fatty Liver, Cancer of the Liver, Hydatids, and Waxy Liver, afford such a version of these diseases as one would expect from their distinguished author. The article on Colitis is too short, and does not give a full account of all that is known on that subject, especially as it occurs in infancy in large towns, particularly in New York, as described by Dr. F. Lewis Smith. The article on Dysentery, though anticipated in an earlier volume, is an excellent account of the disease and of its best remedies. The writer suppresses himself too much and deals too freely in the quotation of authorities. In regard to the dysentery of this country, we are disposed to say that more should have been said in praise of a simple opium treatment apart from either ipecacuan in large doses or laxatives. In the matter of Hydatids Dr. Begbie does not allude to the frequency of the disease in Australia, and of the surgical treatment of it.

Dr. W. H. Ransom, of Nottingham, gives a very compact and clear account of Intestinal Worms, which is the more valuable for being accompanied with very effective artistic illustrations.

Dr. Maclean's articles treat of Congestion of the Liver, Gangrene of the Liver, and Suppurative Inflammation of that organ. The short article on Congestion of the Liver is very good and sensible. The article on Suppurative Inflammation should be carefully read by all Indian practitioners. It discusses the relation of dysentery to abscess of the liver, and the therapeutics of the article cannot be too seriously considered. Dr. Maclean gives the finishing stroke to bleeding and mercury as remedies in this disease. He considers ipecacuanha nearly as efficacious here as in tropical dysentery. He discourages the opening of abscesses of the liver, unless visibly pointing; and speaks highly of the value of Bowditch's syringe for this purpose.

The remaining diseases of the liver not discussed by Dr. Begbie or Dr. Maclean are handled by Dr. Goodeve—to wit, Jaundice, Biliary Calculi, Chronic Atrophy, and Acute Atrophy. These articles give a full and fair account of our knowledge of these diseases, and are judicious from a therapeutical point of view. We could wish that an article had been devoted to the functional disorders of the liver in the light of recent physiological discoveries concerning the functions of the liver. On the important question of the etiology of cirrhosis Dr. Goodeve says that, in Europe at all events, it is chiefly due to the abuse of alcoholic drinks.

Dr. Hyde Salter's article on Asthma has the painful interest of being probably the last work which he wrote before his lamented death, and will put its readers in possession of the views of a physician who had made a very careful and anxious study of this disease.

Dr. Hughes Bennett's article on Phthisis is good, but there is a finality quality about it. It seems as if Dr. Bennett, some twenty years ago or more, had settled comfortably down into a theory of phthisis, and taken very little notice of other men's work since. He disposes of all the researches of Villemin, Simon, Sanderson, and Wilson Fox in a paragraph. A little fault in the digestive function, an acid dyspepsia, impairing the power of digesting fat and making the food into a good emulsion fit for nourishing tissues or for forming plastic exudations, is Dr. Bennett's short account of that deep dyscrasia which ends in phthisis. The remedies are hygienic measures, a little alkaline tonic, and cod-liver oil. Most of us must have seen marvellous power of digesting oil in many phthisical patients, and much benefit from the use of acids. We are all greatly indebted to Dr. Bennett for the present improved results in the treatment of phthisis—(by the way, he does not seem to have seen anything from Dr. Williams since 1862); but we should be glad to see in him a little more power of receiving the teachings of other men.

A few other single articles call for notice, as Dr. Hermann Beigel's excellent article on Cancer of the Lung, and a very valuable one on Cirrhosis of the Lung, by Dr. H. Charlton Bastian—perhaps a little too long. It was written three years since, and, therefore, before Dr. Andrew Clark had read his paper on Fibroid Phthisis to the Clinical Society. The author regards fibroid phthisis as identical with cirrhosis of the lung. He gives an abstract of thirty cases, and accounts satisfactorily for not only the cirrhosis but the dilatation of the bronchi, which is so common a feature in these cases. The cirrhosis he regards as consisting in a hyperplasia of the connective tissue of the lung, and the dilatation of the bronchi as happening compensatively to fill up the void left by a contracting organ in a closed cavity. The article shows great research, observation, and thoughtfulness, and must be regarded as a very complete account of the cirrhotic process in the lung.

Apneumatosis, a name recommended by Dr. Graily Hewitt for the condition of lobular pneumonia, is treated of in an article by this physician. The state is a very common and important one, and the description of it, though rather long, is very good. Dr. Roberts's article on Bronchitis is practical and sensible, if not original.

Dr. Anstie's contributions make a very valuable and agreeable feature of this volume. His article on Pleurisy is one of the freshest, most earnest and encouraging pieces of medical writing which it has been our lot to read

for many days. It deserves a careful and detailed notice, such as we cannot find space for. But we must express our satisfaction at the prominence given to a few points in the case of pleurisy, such as the unsuspected frequency of it in children, and the detection of it in them; the explicit denunciation of bloodletting as a means of preventing, and of mercury as a means of absorbing, effusion; the praise of fomentations and poultices as local applications, and of the hypodermic injection of morphia to the extent of one-sixth or one-fourth of a grain for the relief of pain; and, above all, the prominence given to paracentesis as a means of relief and cure, as practised principally by Trousseau and Bowditch. Dr. Anstie's article on pleurisy must be regarded as the best on the subject in any English book. His other papers are also suggestive and original, as well as eminently practical.

The acknowledged authority of Sir William Jenner, Mr. Curling, and Dr. Morell Mackenzie, makes it unnecessary to characterise in much detail their contributions. Sir William Jenner's article on Emphysema will be read with that respect which is due to an author who has always ruled our views of this common and distressing state since his much quoted paper on this subject in 1857, in which he advanced an expiratory theory of the production of emphysema. His present article is an amplification of the views there set forth, and a very valuable contribution to our literature, both from a scientific and practical point of view. It comes opportunely to the profession at the beginning of a severe winter, when we shall all be better practitioners for considering fully and philosophically the various factors in the production of emphysema. Into fifty pages Dr. Morell Mackenzie has condensed a capital account of the diseases which he has done more to elucidate than any physician in England, and he concludes his paper by an appendix on the use of the laryngoscope, illustrated with engravings of the larynx.

Dr. Wilson Fox's article on Pneumonia would require a separate notice were it merely to give an outline of the doctrines advanced in relation to pneumonia, to secondary pneumonias, and to chronic pneumonia. His article on Chronic Pneumonia resolves itself into one on Cirrhosis of the Lung, exhaustively treated of by Dr. Bastian in an article already alluded to. We do not attempt to reconcile Dr. Wilson Fox's views, according to which cirrhosis is generally connected with a pneumonic process, with Dr. Bastian's, according to which the cirrhosis consists of hyperplasia of the connective tissue and is totally distinct from what is understood as inflammation. Suffice it to say that every conceivable case elucidating fibroid disease of the lung has been dragged to light by these authors, and received its pathological construction. General readers will think that too much space has been given to diseases which are rare and curious rather than important. Too much praise cannot be given to Dr. Wilson Fox's article on Acute Primary Pneumonia. This and Acute Tonsillitis are about the only acute local idiopathic diseases we see nowadays; and it is of great moment that they should be systematically studied. The natural history of pneumonia is most carefully and elaborately worked out by Dr. Wilson Fox, as is the pathology. We cannot attempt to give any details of the article further than to say that the author describes the exudation in pneumonia as chiefly occupying the interior of the vesicles, and the disease itself as generally critical; and that in the matter of therapeutics he recommends a treatment essentially similar to that of Dr. Bennett and others, which has revolutionised our ideas of the fatality of acute idiopathic inflammation. The article is too long; but it is so inclusive of all that has been said and done in regard to the subject, and yet withal so independent in its tone and teaching, that we must forgive its length.

We must conclude our notice of this volume without attempting to do justice to many of its articles. Medical men are now so clinical in their studies that systematic medicine has been somewhat neglected. But, after all, the completeness of clinical studies is to be judged of only, or mainly, by the extent to which they enable us to construct a systematic statement of medical and pathological truth. Doubtless these volumes show that medical writers are still unable to make such a statement with confidence, or with perfect agreement among themselves. But they also show a growing accuracy of medical observation, a growing caution in medical reasoning, and constitute a "System of Medicine" more reliable and more true to clinical facts than has yet been published in our language. It is to be hoped that Dr. Reynolds will soon give the finishing stroke to his great work in the shape of a fourth and final volume.

OUR LIBRARY TABLE.

The Journal of Anatomy and Physiology. Conducted by Professors HUMPHRY and TURNER. Series II., No. 9. November, 1871. Macmillan and Co.—This part of Messrs. Humphry and Turner's journal maintains its reputation as one of the most important English scientific serials, and contains no less than seventeen original articles. Of these the first is by Professor Humphry himself, and is devoted to an elaborate description of the Muscles and Nerves of the Cryptobranchus Japonicus, in which many interesting analogies and homologies are pointed out. Professor Humphry remarks that there can be little doubt that the crura of the diaphragm in mammals are formed by the lumbar part of the subvertebral rectus bending downwards on the sides of the aorta and encircling it, and that the lateral parts of the diaphragm are in like manner formed by the inflection of the lateral parts—the depressores costarum and transversalis parts of the same sheet. Dr. Bradley gives full details of the dissection of the Brain of an Idiot, who was blind from birth, and had only a vocabulary of twenty or thirty words. The brain weighed twenty-eight ounces, and the proportion of the cerebellum to the cerebrum was as 1 : 5·5. Dr. Young furnishes a contribution to the Anatomy of the Shoulder of Birds, and Mr. Watson one on the Anatomy of the Thoracic Viscera of the Indian Elephant. Dr. Blake gives the results of his experiments on the Introduction of the Salts of Platinum and Palladium directly into the Blood. Professor Turner gives some additional variations in the Distribution of Nerves. The Anatomy of the Great Fin-Whale is excellently given by Professor Struthers; that of the Malayan Tapir by Dr. Murie; and that of the Chimpanzee and Anubis by Mr. Champneys. The report on Physiology is remarkably complete.

The Monthly Microscopical Journal. Dec. 1, 1871. No. XXXVI. Edited by HENRY LAWSON, M.D. Robert Hardwicke.—This part, completing the sixth volume of the journal, contains an unusual number of interesting papers, amongst which are—1. Notes by Mr. Saville Kent on Prof. James Clark's Flagellate Infusoria, including Codosiga, Salpingœca, Bicosœca, and Anthophysa, with a plate exhibiting species of each. 2. Notes on Bog Mosses, by R. Braithwaite, M.D. 3. An Ingenious Instrument for Micro-ruling on Glass and Steel, by J. F. Stanistreet. This instrument will rule lines $\frac{1}{25000}$ of an inch apart. 4. The Crystallisation of Metals by Electricity under the Microscope, by Philip Braham. 5. A continuation of Mr. Hilgard's essay on the Infusorial Circuit of Generations, in which he traces the metamorphosis undergone by Oxytricha into Paramœcium

Planaria, &c. 6. Lastly, a paper by M. Georges Pouchet, on the connexion of Nerves and Chromoblasts.

Lights and Shadows in a Canine Life. London: Simpkin, Marshall, and Co. 1871.—As we do not happen to be of a class "who despise the brute creation," but have strong sympathies in the opposite direction, we have read this little book through in hope of discovering some practical idea or other as its *raison d'être*. The authoress recounts many instances of sagacity on the part of her pet terrier, which almost anybody possessing the faculty of observation and a favourite animal could parallel by the score. Possibly the book may have been designed to establish the immortality of the brute creation, in which case we may say that the authoress has succeeded in making it pretty clear that she, like a recent correspondent of the *Spectator*, does not think much of a state of being wherein the companionship of her faithful dog will be wanting.

The British Almanac and Companion for 1872. 12mo, cloth. pp. 288.—This well-known almanac of the Society for the Diffusion of Useful Knowledge is an excellent publication. Besides all the ordinary matters included in an almanac, the volume contains a companion, a year-book of general information on subjects of mathematics, natural philosophy, geography, history, &c., with a good account of the metropolitan charities of the present day, and abstracts of Acts of Parliament, and chronicle of events.

Blackwood's Shilling Diary, 1872.—An excellent interleaved diary of which we shall not fail to make use.

Everybody's Year-book. A popular Annual for 1872. Wyman and Sons.—A little almanac containing miscellaneous information that is useful to everybody. Among other things we notice that Marshall Hall's method (illustrated by plates) of resuscitating the apparently drowned finds a place.

New Inventions.

IMPROVED DRAINS, TRAPS, AND CLOSETS.

THESE improvements for drains, traps, and closets have been invented and patented by Dr. Taylor, of Anerley; and have for their object the purifying and prevention of the escape or return of any sewer gases into the house. For this purpose, in addition to providing suitable ventilating shafts containing charcoal, arrangements are made so that all waste water flowing from the sink shall pass out through a syphon into a box or chamber before descending to the drain; in which chamber is a float or valve so adjusted as to rise and fall by its own buoyancy, thereby allowing the water to descend to the drain as soon as a sufficient quantity shall have collected to float the valve from off its seat, after which the valve naturally descends on to its seat, and thus shuts off all communication with the drain for the time being. The pan for the closet is constructed with an inner flange or lip, beneath which is a pipe in connexion with the external atmosphere. A sliding cover for the pan is also provided, which can be moved into its place by the lever which works the trap, so that any gases which may arise from the pan are at once let off by the ventilating pipe. In addition, chambers of a suitable form are filled with charcoal and placed beneath the seat, so as to absorb any gases in the neighbourhood of the pan. By reference to the drawings it will be seen that any gases passing backwards from the sewer are supposed to be carried off by the ventilating shaft. After passing through the perforated chambers containing charcoal, these are arrested by the large charcoal chamber; or, if any passes up through the syphon to the closet-pan, are then carried off by the ventilating pipe. Any gases passing towards the drains of sinks are purified by the charcoal chambers, and prevented egress into the house by the float-valve and syphon termination of the sink-pipe.

Dr. Taylor hopes to form a Sanitary Company to carry out his system.

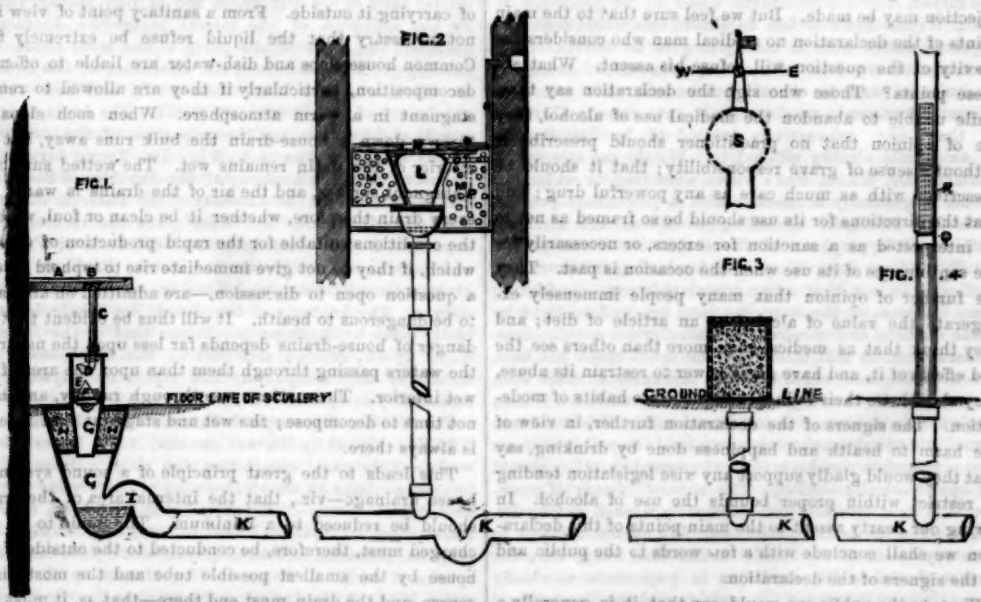

Fig. 1 is an application of an improved trap to an ordinary sink. A represents the sink, in which is set the trap (B), having a finely perforated grating screwed thereto. C, The waste-pipe, at the lower end of which is attached the syphon (D), enclosed in valve-box (E). F, Float or valve. G, Filtering chamber, having an inner case or lining (H) for containing charcoal, and through which the valve-box (E) passes, as shown. I, Ordinary trap attached to the filtering chamber (G) and to the drain-pipe (K).

Fig. 2 represents a closet fitted with improved pan (L), filtering chamber (M M), and sliding cover (N), as also ventilating pipes (O and P), the outer ends of which are covered with wire gauze.

Fig. 3 is a vertical section of a filtering or purifying chamber, containing charcoal in connexion with drain (K).

Fig. 4 is a ventilating shaft, having a grating (Q), on which are supported the canisters (R) containing charcoal, and provided with a perforated cone or sphere (S) at the top.

THE LANCET.

LONDON: SATURDAY, DECEMBER 23, 1871.

When six weeks ago we urged upon medical practitioners to take a very responsible view of the prescription of alcohol and the duty of prescribing it specifically with reference only to present use and actual circumstances, we felt that we were not appealing in vain; but we scarcely expected that in so short a time a Medical Declaration respecting Alcohol would appear justifying our view of the question as a very grave one, and our assertion that medical men would be ready to give help in the rectification of a habit which more than any other mars the health and happiness of the nation. If any of our readers will take the trouble to compare our own sentiments on the subject with those expressed in the declaration which we publish elsewhere, and which is signed by 250 of the leading members of the profession in town and in the provinces, he will be struck with the similarity, if not the identity, of some of the points in both. This list of names is very representative. It is, indeed, so inclusive that a few honoured names which are absent are conspicuous by their absence. It is so comprehensive that one is surprised to miss a particular name that seems necessary to give complete authority to the document. This omission may be accidental, or there may be something in the wording of the declaration to which objection may be made. But we feel sure that to the main points of the declaration no medical man who considers the gravity of the question will refuse his assent. What are these points? Those who sign the declaration say that, while unable to abandon the medical use of alcohol, they are of opinion that no practitioner should prescribe it without a sense of grave responsibility; that it should be prescribed with as much care as any powerful drug; and that the directions for its use should be so framed as not to be interpreted as a sanction for excess, or necessarily for the continuance of its use when the occasion is past. They are further of opinion that many people immensely exaggerate the value of alcohol as an article of diet; and they think that as medical men more than others see the bad effects of it, and have great power to restrain its abuse, they should use their influence to inculcate habits of moderation. The signers of the declaration further, in view of the harm to health and happiness done by drinking, say that they would gladly support any wise legislation tending to restrict within proper bounds the use of alcohol. In giving our hearty assent to the main points of this declaration we shall conclude with a few words to the public and to the signers of the declaration.

First, to the public we would say that it is generally a shabby thing to attribute to the profession the creation of intemperate habits. At the very most, the reckless prescription of large quantities of stimulant is a rare and exceptional act. It does happen occasionally, but not often enough to explain the vice in one case in a hundred. A liking for these things is father to the theory that they are beneficial, and in too many cases the doctor is unjustly made the scapegoat. At the same time, as medical men, it behoves us, above all things, to remember the character of human nature and to act accordingly.

To the, for the most part, eminent men who have signed this declaration we would say that, by their example as teachers of the profession and as consultees, they have a power in this matter which exceeds that of any abstract declaration like the present. They chiefly are the authorities in medical practice. Medical men now are only following their leaders; and if the leaders prescribe alcohol with the same definiteness with which they prescribe opium, the profession will soon follow the example. The causes of intemperance are highly complicated—far more complicated than most teetotalers think,—and cannot be removed in any one way; but we have great influence as a profession, and it should never be so used as to be quoted in defence of excess. We are glad that our profession is explicitly committed to an interest in the question of drunkenness, which, next to or as a part of preventable disease, urgently claims the attention of legislators and all humane men.

Our charges against the drainage of Londesborough Lodge have not unnaturally attracted a vast amount of attention, and have given rise to a correspondence in the public journals which is more calculated to perplex than enlighten the public upon what has been made a very complex question by the ingenuity of engineers.

A drain is, or ought to be, a simple apparatus for discharging the liquid refuse of a house without the trouble of carrying it outside. From a sanitary point of view it is not necessary that the liquid refuse be extremely foul. Common house-slops and dish-water are liable to offensive decomposition, particularly if they are allowed to remain stagnant in a warm atmosphere. When such slops are thrown down a house-drain the bulk runs away, but the interior of the drain remains wet. The wetted surface is a stagnant surface, and the air of the drains is warm. In every drain therefore, whether it be clean or foul, we have the conditions suitable for the rapid production of effluvia, which, if they do not give immediate rise to typhoid fever—a question open to discussion,—are admitted on all hands to be dangerous to health. It will thus be evident that the danger of house-drains depends far less upon the nature of the waters passing through them than upon the area of the wet interior. The matters pass through rapidly, and have not time to decompose; the wet and stagnant foul interior is always there.

This leads to the great principle of a sound system of house drainage—viz., that the internal area of the drains should be reduced to a minimum. The liquid to be discharged must, therefore, be conducted to the outside of the house by the smallest possible tube and the most direct course, and the drain must end there—that is, it must terminate in the open air. When the course of the drain is short, and the matters passing through it are not particularly offensive, the termination may be above the level of the ground, and protected only by a metal flap-valve from the direct action of the wind. When the house-drain

is longer, and terminates outside below the level of the ground, it should open into a small iron box-trap. The house side of this trap may be covered with a grating open to the air, and the sewer side should be open to a ventilating shaft carried up to the top of the house, and terminating at a distance from windows or chimneys. There is no objection to the use of rain-pipes as ventilators for outside drains, providing their diameter is as large as the drain with which they are connected, and provided they are continued above the eaves when there are windows near. Special precautions should be taken in the case of watercloseets, which should invariably be erected close to the outside wall. The soil-pipe should in all cases be carried to the top of the house, and should be left open. Between the soil-pipe and the seat the arrangements cannot be too short and simple. The old pan-watercloset is a most dangerous abomination. It is impossible to keep it clean. It gives off its unwholesome effluvia every time it is used, and when not used the fetid gases accumulate beneath the water-pan. The two essentials of a good watercloset are: first, that the pan should always be half full of water. This secures the pan itself from contamination, and provides a rush of water to carry everything away into the soil-pipe. Secondly, there should be nothing between the pan and soil-pipe but a simple syphon-tube of smooth earthenware just sufficient to prevent influx of air from the soil-pipe, but affording no opportunity of fouling up.

With these simple principles before them, our readers will be able to judge as to the state of the house drainage in any particular case. It may be instructive, however, to observe how completely they have been ignored. The subject has not, in fact, received the attention it deserves. Celebrated architects are too much in the habit of leaving the drainage arrangements to subordinates and clerks of works. Watercloseets are stuck into spare corners anywhere, or convenience is considered before health. Instead of short and simple drains terminating in free outside openings, it is not uncommon to find a complicated system of converging drains—the extremities closely trapped, and the exit into the sewer also trapped. The effect of pouring water into such a system is to force out the gases somewhere; and as the traps in the house are usually the lightest, they afford the easiest exit. We have heard of a recently constructed mansion, the work of a most distinguished architect, in which the main sewer passes underneath the dining-room. The very lives of the inhabitants depend on the keeping down of gases by porous materials like bricks and mortar. It is not too much to say that no one is really safe under such circumstances.

What we want is more general education in sanitary science. We have been so long accustomed to look upon all systems of sewage and excrement removal as unavoidable abominations that we do not really believe in the possibility of perfection. But sweet air and wholesome water are surely worth a struggle; and the attacks of typhoid fever which gave rise to these remarks will not have been without their use if they should induce great architects to afford the example of setting the requirements of health at least on an equality with ornamentation and architectural effect.

MORE good effects than one ought to result from the conference on Tuesday week to discuss the extension of the provident principle to hospitals and dispensaries, held on the invitation of the Charity Organisation Society, presided over by a not uninfluential member of the House of Commons, and attended by the President of the Local Government Board, who also took part in the discussion. One obvious advantage of such a conference is, that it removes the question of medical attendance on the respectable classes who live by industry from the category of mere doctors' questions into one of public interest, to be considered by statesmen as a matter deeply affecting at once the morality and the health of perhaps the most important section of the community. Obviously, as the member for Westminster in his opening speech said, a working man, even with good wages, is to be pitied who is confronted with a bill of five or ten or thirty pounds. In London here, as medical men best know, a working man with thirty shillings a week and a number of young children, with every disposition to be honest, and actually paying everybody else, cannot pay the doctor. If the man is not in a sick fund, which, in London at least, rarely provides medical attendance for the wife and children, the doctor must either go unpaid or be badly paid, or, for this one purpose, the honest man must become something very like a pauper, taking as a gift that which by a better system he might easily have as a matter of respectable contract with the kindly help of other classes of society.

This view found ample and sensible expression at the conference, and was almost universally accepted by the meeting. We say almost universally, for it would be foolish to ignore the fact that a considerable number of people look upon this provident principle not as charity but as an evasion of charity. They consider that there should be very rich people to give, and very poor people to be receptacles for the doles of the rich. Charity in their view consists in giving, not in helping. The poor exist not to be "made rich" according to a divine principle, but to uphold the practice of almsgiving, which is supposed to be good for the soul. We are sorry that even Dr. ROGERS seemed to fall into the error of thinking that nothing could be done in this matter but the making of a better Poor Law, and unskilfully and unnecessarily represented as opposed to each other those who tried to commend the provident principle and those who tried to better the administration of the Poor Law. There is need for great consideration of the industrious classes in London in making any changes. We think there is a little too much said about imaginary complaints and unfit recipients. Sickness in a poor man's house, with its few rooms and scanty resources, is a terrible reality. But there is the more need for having it provided for on true sound principles—just, on the one hand, to the working man, and, on the other, to a profession which has never been backward in acting benevolently, but which, for all that, should be considered a little more than it has hitherto been.

We have said that more good effects than one ought to proceed from this Conference. DR. ACLAND took occasion by the hand, and asked, in Mr. STANSFELD's presence, if any glory could accrue to a Government so great as that which would

follow an attempt to stop those "senseless accidents" by which death in the form of typhoid fever comes to both rich and poor alike in thousands of cases. Mr. STANSFELD showed by his words afterwards that he felt the weight of the question that had been put with great and creditable emotion by Dr. ACLAND, at a crisis when preventable disease assumes, in the eyes of the nation, the character at once of a blunder and a crime.

M. E. VAN BENEDEN publishes a paper in the *Académie Royale de la Belgique* containing the results of his observations on the Gregarinidæ, which are important as explaining an obscure point in the history of the development of these lowly organised animals—namely, their development from Amœbæ, a change which was originally stated to occur by LIEBERKÜHN. VAN BENEDEN has followed, in the case of the Gregarina gigantea, the entire series of metamorphoses undergone by the masses of protoplasm proceeding from the psorospermia into a fully developed gregarina measuring two-thirds of an inch in diameter. He found in the intestine of the lobster small masses of protoplasm destitute of nuclei, finely granulated, and performing continuously ordinary amœboid movements. These bodies he compares to the Protamœba primitiva or Protamœba agilis of HAECKEL, and classifies them with the true Gymnocytodes of that author. Bodies of precisely similar appearance are also found, however, which are incapable both of locomotion and of change of external form. In these a homogeneous marginal zone and a granulated internal mass come to be distinguished. The Gymnocytode invests itself with a membrane, and is thus converted into a Leptocytode (of HAECKEL). Each cytode now thrusts out two arms, which are prolongations of its substance, and each of which is destined to become a Gregarina. The first one that makes its appearance is the largest, and is characterised by its marked granulation and great mobility. It detaches itself from the cytode and becomes free. Before this occurs, however, the smaller arm is thrust forth, which is not granular and is motionless. After the first or mobile arm has separated from the cytode, the second arm becomes as mobile as the first was, and absorbs the whole body of the cytode into itself, just as the embryo of a mammal absorbs the contents of the yelk-sac. The two protoplasmic arms thus produced from a single cytode—Pseudofilaria, as VAN BENEDEN terms them—move with extraordinary vivacity in the intestine of their host. After the lapse of a certain time the movements become less lively; the pseudofilaria become shorter and thicker; nucleoli, and subsequently a nucleus, make their appearance in their interior. At a still later period a homogeneous cortical layer (membrane) is differentiated from the granulated contents, at one pole of which strongly refractile granules collect, and the whole organism now appears as a well-defined small Gregarina, which soon augments in size.

THE London Fever Hospital has completed its arrangements for the reception of private patients, and so meets a really urgent public requirement. Three guineas a week is the sum fixed for the occupancy of one room with the necessary attendance and advice. We shall probably make a special report on this matter.

Medical Annotations.

"Ne quid nimis."

THE PRINCE OF WALES.

THE fact that the physicians of H.R.H. the Prince of Wales have decided to issue only one bulletin a day is the best evidence the public could have of the satisfactory progress which His Royal Highness is making towards recovery. We may, however, add, that the progress is all that the statements issued in official form represent it to be. There is a complete absence of febrile symptoms, and the strength of the Royal patient is improving every day, whilst there is nothing of any kind present in the case to arrest the Prince in his convalescence. The poor boy Blegg, whose case began with very severe symptoms, steadily improved up to the twentieth day, on the evening of which cough and other evidences of pulmonary congestion showed themselves. His condition steadily got worse until death. No parallel can be drawn between the case of the Prince and the boy Blegg, for the simple reason that the latter was a very delicate, probably a consumptive lad, and had previously suffered pretty severely from bronchitis, which rendered him an easy prey to the disease of which he died.

THE PRINCE'S PHYSICIANS.

WHEN solicitude for the Prince and sympathy for the Royal family were at their height, we sometimes wondered whether the public ever for a moment considered the position and responsibilities of his medical advisers. The care of life is at all times an anxious thing, but the charge of such a life, exhausted by a month of typhoid, and jeopardised by paroxysms of dyspnœa, with a whole nation looking on, and a whole profession criticising and construing bulletins, means a strain of all the powers of body and mind which cannot be realised fully by many, even of professional men. In ordinary medical practice one care expels another, and the study of one case relieves the strain of anxiety about another. The medical man leaves his patient for hours or for a day, and comes back with a fresh mind to the case. Here all was different. The medical advisers of the Prince have been kept in contact with this one huge duty for a month, without relief, sharing the domestic grief as well as the medical responsibility connected with an illness involving consequences which cannot be described. We say we wondered whether the public ever thought of what was implied in being the Prince's physicians during this crisis.

It is now gratifying to us to have to record that when things were at their worst people deeply confided in the physicians, and that as soon as the nation breathed again its foremost organs took occasion to remark upon the work of the medical men, and to show that they appreciated its momentous difficulties and the great merit implied in the way in which it had been discharged. People felt the force of the lines—

> "A wise physician, skill'd our wounds to heal,
> Is more than armies to the public weal."

We beg to add our tribute to that of the lay press, and to say with what pleasure we regard the whole medical work in this case, so far as at present it can be judged of, from the early diagnosis of the disease, insidious and deceiving as it was in the outset, by Dr. Lowe and Mr. Oscar Clayton, down to the present time. Of all cases, it has been one to tax the judgment and the resources of the medical men, and the result so far is honourable to Sir Wm. Jenner, Dr. Gull, and Dr. Lowe, and through them to the profession in which

they occupy such distinguished positions. The Prince's physicians will greatly need rest and refreshment after their labours. Let them begin to find these already in a nation's gratitude, which we hope will be recorded hereafter in an unmistakable manner.

THE COLLEGE OF SURGEONS.

AT the last meeting of the Council of the College of Surgeons, Mr. Cock, whose period of office as an examiner comes to an end early next month, announced his intention of not soliciting re-election. We congratulate Mr. Cock on thus acting up to not merely the letter but the spirit of the charter of the College, and he will carry with him the good wishes of his numerous friends. In accordance with the resolution of the Council requiring one-half of the Court of Examiners to be outside the Council, it would have been necessary to elect a Fellow not on the Council to fill the vacancy left by Mr. Cock; but, having regard to the probability of an amalgamation between the Colleges of Physicians and Surgeons being soon carried into effect, it has, wisely we think, been resolved to postpone the election of an examiner for the present.

Mr. Charles Hawkins's motion to class the successful candidates for the Fellowship would no doubt have much to be said in its favour if the fellowship diploma were simply an academic honour; but as it is a higher examination of men already in practice we think it would be invidious to make distinctions which might be seriously injurious to after-reputation. Besides, with a court of ten examiners it would be manifestly unfair to classify men who by mere accident may have passed very different ordeals at the hands of different inquisitors. The question was, therefore, very properly shelved for the present, though it may be well that it should be brought forward again.

Mr. Gay's motion for inquiry into the preliminary examinations, which prove fatal to the prospects of so many embryo medical students, has been referred to a committee, which will, we trust, strive to point out to schoolmasters the weakness of their teaching to which the failures are due, rather than to reduce the standard below what it is at present. With Mr. Erichsen's motion, that vacancies in the College professorships should be advertised, we cordially agree, since by the present system the offices almost go a-begging among the members of the Council, whilst Fellows who would fill the offices with credit to themselves and the College are left out in the cold unless they happen to have a friend at court. We publish at another page the reports of the Committees of the Council referred to in our summary of the proceedings of last week.

HOSPITAL GOVERNORS.

THE Governors of the Brighton Infirmary have been engaged in discussing a question of somewhat wider interest than is at first sight apparent. It seems that there is a gentleman willing to give £1000 to the institution, provided that by doing so he can secure certain privileges for the inhabitants of the village of Cuckfield; and he has signified his desire that the vicar and churchwardens should for ever have the privilege of nominating four in-patients and ten out-patients annually. The committee of management not only wished to accede to this proposal, but they also wished to have powers to enter into like agreements with any other donors of sums above 200 guineas; and, in fact, to work the idea of the sale of privileges to a locality as a means of obtaining lump sums of purchase-money for investment. The necessary powers have been given by a general meeting, after some discussion as to the way in which they should be framed and the safeguards with which they should be surrounded; but no one present seems to have raised the question of the general fitness of the policy to which the infirmary thus stands committed. We fully believe that the "privileges" of governors are unmixed sources of injury to all hospitals, and especially to provincial ones. They banish and drive away innumerable smaller subscriptions from people who cannot afford to become "privileged," and who therefore, under present circumstances, will not give at all; and they exclude many most valuable persons from the boards of management. Worse than all, they exclude the sick poor, in order to make way for hysterical housemaids and superannuated coachmen with chronic rheumatism. It is a cruel caricature of charity to place the need of a governor's letter in the way of the prompt treatment of those for whom hospitals are professedly intended; and it is quite manifest that, if there were no such letters, the persons who now obtain admission would still obtain it—provided they did not exclude others whose necessities were greater than theirs. We have heard of one case, in which a board of guardians subscribed two guineas a year to a county hospital; and, for this sum, and by the aid of an astute relieving officer, managed to keep a bedridden pauper as an in-patient for seven years. We must glance, in passing, at the obvious fact that, if the donor of the £1000 had wished to do as much good as possible, he should have vested the power of nomination in the parish doctor rather than in the vicar and churchwardens, who are less likely to be good judges of the most fitting cases for admission, and who may possibly differ about the respective claims of rival candidates. We hope to see the day in which the privileges of hospital governors will be reduced to the single, and surely valuable, privilege of doing good by giving their money for the support of a well administered and wisely ordered charity; and we feel quite sure that a committee which would abandon the abominable system of recommendations, and throw themselves on the liberality of the public, would have no cause to regret their decision.

MR. ALLENBY'S LEGACIES.

VICE-CHANCELLOR SIR J. WICKENS was occupied, on the 16th instant, in hearing a curious case arising out of the will of the late Mr. Everett Allenby, who bequeathed the residue of his large property to his executors upon trust "to divide the proceeds in such parts and proportions, and in such manner and form, among any hospitals and charitable institutions situate in London and elsewhere in England, and whether the proposed objects of the bounty should have been instituted for similar or different purposes, as they in their sole and uncontrolled discretion should think proper." A sum of £11,360 being in hand, the executors drew up a scheme of distribution which required the sanction of the Court. Before this was obtained, one of the executors died; and the scheme was opposed on two grounds—by the Attorney-General, because it was incomplete, and made no provision for the distribution of a further sum of £20,000 hereafter to fall in; and by one of the next of kin, who contended that the bequest had altogether lapsed, as the two executors could no longer exercise a joint discretion. The Vice-Chancellor considered that the duty of carrying out the wishes of the testator was now vested in the Court, and that the whole case must be brought before the Court on petition.

The scheme for distribution of the £11,360 in hand, proposed by the executors, seems to us to be singularly open to objection. They wished to give the money under three different heads—first, £5860 to charities near the testator's native place, Fotherly, in Lincolnshire; secondly, £4650 to

charities in or near the places where the testator acquired his fortune, Regent-street, London, and Leamington, Warwickshire; thirdly, £850 to charities in or near Surbiton, where the testator resided. Against this we have nothing to say; but under the second head we find a scheme for giving the specified sum in driblets, ranging from £500 to £100, to no less than twenty-two hospitals and other charities, put together on no intelligible principle. For instance, the West London Hospital is set down for £200, while St. Mary's Hospital, which is certainly nearer to Regent-street, is not mentioned. We trust the Court of Chancery will so distribute this large bequest as to give substantial help to a few well-selected charities rather than small doles to many. It is impossible, however, not to feel some misgivings about the concluding words of the decision just announced. "There would be no order on the motion, except that the *costs should be costs in the cause*." Alas for the intentions of the testator! Alas for the expectant charities, and for the poor whom they might relieve!

DR. MILROY'S MISSION.

THE College of Physicians has received certain accounts from Dr. Milroy relative to his proceedings in the matter of the examination of the system of treating leprosy advocated by the late Dr. Beauperthuy. Dr. Milroy left Demerara for Barbadoes and Trinidad at the end of October, after a three months' stay at the former place.

Dr. Milroy, finding on his arrival at Demerara that the belief in the contagiousness of leprosy was very prevalent, suggested that the views of the medical men of British Guiana should be obtained upon the matter, and the governor issued a series of interrogations in furtherance of this object. Replies were received from some sixteen medical men, and published in abstract in the official *Gazette*. We have had an opportunity of perusing the document. Eight of the sixteen, including Dr. Beauperthuy, allow that the disease is contagious under certain conditions; one is doubtful, and seven deny the contagiousness. The general opinion seems to be that leprosy is on the increase, and we observe that the segregation of lepers is not now enforced as it used to be. No information at present has been furnished by Dr. Milroy as to the value of Dr. Beauperthuy's treatment.

INSPECTOR-GENERALSHIP OF H.M. BRITISH ARMY MEDICAL SERVICE IN INDIA.

WE have received so many communications regarding the reappointment of Dr. Beatson, C.B., to the post he formerly occupied as medical head of the British forces in India, that we have deemed it right to institute some inquiries into the subject, which naturally divides itself into two parts—viz., the facts of the case, and our opinion thereon.

The facts appear to be as follows:—Dr. Massy relinquishes his position as head of the sanitary branch of the army medical service, and goes to India. Dr. Muir has been selected, and very properly so in our opinion, on account of his reputation and great experience, to discharge the duties of the sanitary branch; and it became necessary to provide his successor in India from amongst officers of the same grade at home. According to the roster, the Inspectors-General, arranged in the order of their arrival in this country from foreign service, are Mr. Lawson, Dr. Beatson, and Dr. Dane. The former is ineligible, from not having previously served in India as an executive officer, and it therefore falls to Dr. Beatson's turn to be ordered there. We are assured that, according to the regulations of the service, Dr. Beatson is entitled to go, and, what is more, that if he refused to do so he would render himself liable to be placed on half pay. It is scarcely likely that, where duty and inclination are probably fully in accord, this officer would forego so lucrative an appointment.

Thus far we have stated the facts; but if we are asked whether we approve of a system where such facts obtain, we cannot hesitate to pronounce it unsatisfactory. Dr. Beatson is said to be a very able man, but we cannot suppose that he is the only able man in the service; nor, indeed, does it, from our point of view, entirely turn upon a question of ability. Here is a large department in a very stagnant state as regards promotion, with a really insignificant number of lucrative appointments to be obtained in it, and it twice falls to the lot of one man to enjoy by far the best and most lucrative of these appointments. A hard and fast line is drawn in the army medical service between the executive and administrative ranks, and the latter undoubtedly enjoy great relative advantages over the former. Neither by seniority, selection, nor any other system of promotion, can the direction of the department be carried on with efficiency to the service and satisfaction to all its members at the same time; but we are stating no new thing when we say that the time has come for Mr. Cardwell to remodel the regulations, so as to limit the tenure of Inspectorships to five years in the British, as it is in the Indian, medical service.

THE ADULTERATION BILL.

WE learn with pleasure that a Bill for preventing adulteration will be introduced into the House of Commons by Mr. Muntz early in the forthcoming session, and that it will be likely to receive the support of the Government. We regret to add that its clauses will be only permissive to local authorities, and will provide that they "may," not that they "shall," appoint proper officers to carry out its provisions. We hold all permissive legislation to be utterly unsound in principle, generally futile in practice, and to be a miserable attempt on the part of the Government to shift its own duties and responsibilities (among which the prevention of systematic robbery and of occasional poisoning may surely be reckoned) upon the shoulders of somebody or of anybody else. Still, if the law be obtained, it may perhaps be put in force somewhere, if there should chance to be any town in which the "local authority" is not another name for the local retail tradesmen. Even if enforced in one town only, it would be educational, would bring out some startling facts on official authority, and would perhaps pave the way for the eventual conversion of "may" into "shall." It is worth while to notice an erroneous notion that largely obtains among the more wealthy classes, and that to some extent explains their apathy upon the subject. It is very commonly believed that adulteration depends upon the consumer's demand for unattainable cheapness, and that a high price will secure a genuine article. There cannot be a more absolute delusion, or one that it is more important to dispel. As trade is now carried on, price affords not the slightest guarantee of purity, and many articles, with the names of which we are all familiar, are never sold in their genuine state at all. The higher the price of the article, the greater the profit of adulteration, the greater the temptation to practise it, and the greater the difficulty of obtaining what is genuine. Our whole system of trade is demoralised by a custom that has become universal, and the evils and the extent of which only those know who have inquired into them. We wish that a few legislators in either House of Parliament, prior to the debates on the Bill, would purchase at high prices a few ordinary articles of household consumption, and would submit them to competent chemists for analysis and report.

RAPIDITY OF THE CIRCULATION IN THE VEINS.

A TRANSLATION of a paper contained in the Bulletin of the St. Petersburg Academy of Sciences appears in the *Journal of Anatomy and Physiology*. It contains the results of the experiments of MM. Cyon and Steinmann, who have recently found that the amount of blood which flowed in a given time through the jugular or crural veins of dogs, narcotised with opium or chloral, was nearly the same as that which flowed through the corresponding arteries. The velocity of the current in veins is therefore much greater than that calculated by Volkmann. The rapidity of the current in the veins undergoes variations similar to that in the arteries, so that it is much diminished in the jugular when the carotid of the same side is compressed, but is increased by compression of the carotid of the opposite side. Division of the spinal cord lowers the blood-pressure and thus lessens the rapidity of the current. Irritation of the cord generally raises the blood-pressure in dogs only to a slight extent, and as it causes contraction of the arterioles, it generally lessens the rapidity of the current. Sometimes division of the cord is followed by a slightly increased rapidity of the current. Irritation of a sensory nerve produces general contraction of the arterioles, and temporary contraction succeeded by dilatation in the part supplied by the nerve. When the tibial nerve was irritated the rapidity of the current in the crural vein was increased on one occasion so much that Cyon thought it due to local dilatation of the arteries occurring at the same time as a general increase of blood-pressure. At other times the rapidity became greater as the blood-pressure sank, apparently from the contraction of the arterioles, which had slowed the current in spite of the increased blood-pressure having given way to dilatation. If no rise of blood-pressure occurred, the stream in the veins was slowed by the contraction of the arterioles. Stoppage of artificial respiration in curarised dogs increased the rapidity of the current, and it only began to diminish when they were becoming asphyxiated If the tracheæ of dogs which were not narcotised was closed when their lungs were distended with air, the rapidity of the current in the veins became rapidly diminished in consequence of venous congestion.

THE RECENT OUTBREAK OF CHOLERA NEAR HALIFAX, N.S.

WE have been furnished with some additional particulars relative to the recent outbreak of cholera at Chezzetcook, a place about twenty-five miles north of Halifax, N.S. The disease was clearly imported by the steam-vessel *Franklin*, a cholera-stricken ship, which had put into Halifax nearly three weeks before the date of the occurrence. The first case of cholera at Chezzetcook had held direct communication with the ship. Up to the date of our intelligence there were five attacks and two deaths. The local Government have shown great promptitude in the matter, and Dr. Jennings, who proceeded from Halifax to Chezzetcook on the origin of the outbreak, has since returned, and he reports that there is every reason to believe that the precautions adopted will prevent any further spread of the disease. It appears that the *Franklin* left Stettin for New York about the 10th October last, calling at Copenhagen, and Christiansand, Norway, where it completed its amount of 588 steerage, and 22 cabin passengers. It left the last-named place on the morning of October 15th. The vessel was short-handed, badly provisioned, and the amount of fresh water that was shipped proved to be quite inadequate for the requirements of those on board, while the condition of the steerage and decks is described as dirty in the extreme. After the *Franklin* had been about a fortnight at sea dysentery broke out among the passengers, and by the time the vessel reached Halifax (November 6th) it is alleged that about thirty persons had perished on board, half of them from cholera. Our accounts of the state of this emigrant vessel have been drawn from the New York papers, and if they are accurate, as we have no reason to doubt, we sincerely trust that something may be done towards preventing such discreditable occurrences in future. The facts, from a medical point of view, are very interesting; for they add another illustration in proof of the doctrine that the exciting cause of cholera is a something portable, and that the susceptibility of the individual and of the community to its action will greatly depend upon the conditions that happen to be present at the time; and we may fairly reckon dirt, unwholesome food and water, and overcrowding as among the most potent predisposing causes of epidemic disease. It will be remembered that some years ago the arrival of the steam-ship *England*, on board which cholera was raging, was apparently the cause of the introduction of that disease into Halifax. Two pilots took cholera, and one of them died of it, after having been towed in a boat astern the vessel. They subsequently transmitted the disease to their families living at a village near Halifax, where it had previously been long unknown.

PHOTOGRAPHS OF SKIN DISEASES.

IN a rather elaborate essay, that which gained the Boyston Prize recently in America, the writer, Dr. Roy Jeffries, makes some very true observations in regard to the use of photography in illustrating skin disease. He remarks: "To the surprise of all, photography has quite failed to represent them. It has been now pretty thoroughly tried, and the result is most unsatisfactory. Without colour the photograph shows little or nothing of the disease; and if hand colouring is put on, you at once destroy the special value of a photograph, its absolute accuracy as to detail. The test is this: Can you say what the disease is from the photograph without the name attached to it?" and, replies Dr. Jeffries, "We have repeatedly failed." As placards, photographs, he adds, of course serve a special purpose for both artist and doctor. There is a great deal of truth in these criticisms. If there be a class of diseases that requires to be seen and handled to be learnt, it is that of cutaneous mischiefs, and their very commonness should make us discard all substitutes for this method.

THE COLONIAL OFFICE AND YAWS-HOUSES.

THE opinion of the College of Physicians has been asked by the Colonial Office upon certain rules drawn up for enforcement in Dominica against persons affected with yaws, and particularly as to the propriety of isolating those suffering from the disease, and detaining them compulsorily in hospital till cured. Lord Kimberley desires to know if such rigorous measures are necessary, and whether the disease is curable, and so on. The question has been referred to the Leprosy Committee, and Dr. Graham Balfour, F.R.S., was elected by the Fellows to supply the place of Dr. Milroy, who is absent abroad. The natural history of yaws or frambœsia has yet to be written. Little or nothing is really known about the disease, some regarding it as syphilitic, others as a special malady supplanting measles and scarlatina among the young Africans, whilst there is a wide difference of view as to its contagiousness. We hope the Leprosy Committee will be able to throw some light on the subject.

THE SHARPEY TESTIMONIAL.

THE copies of the bust of Dr. Sharpey are now ready for distribution to the subscribers. The bust, which is by Thorneycroft, is a most excellent likeness, and will, we are sure, be greatly valued by the former pupils and friends of Professor Sharpey. The massive head, the kindly genial face, the thoughtful expression of the eye, are all faithfully reproduced. "Voice only fails—else how distinct;" and how pleasantly we recall, while regarding this charming memento of the Professor, the tones which gently compel attention and which cannot but be pleasantly held in remembrance by all who have had the good fortune to listen to those lectures which have served in no small degree to raise University College to its present position among the medical schools of Europe.

THE CONJOINT EXAMINATION SCHEME.

WE understand that all the English universities have now accepted the draft scheme for a Conjoint Examination Board, as proposed by the College of Physicians and the College of Surgeons of England, and that it only now remains to submit the matter to the standing counsel of the two latter bodies for their opinion as to the practicability of carrying out the scheme without in any way violating the provisions of their respective charters. It is pretty well known that in the case of the Royal College of Physicians no difficulty at all is apprehended. It is probably so with the College of Surgeons, but of this we have never had positive assurance.

THE CONTAGIOUS DISEASES ACTS.

AN important memorial, signed by almost all the senior and leading members of the profession, has been sent to the Home Secretary, conveying the earnest hope that in any future legislation regarding contagious diseases the main principles of the Acts of 1866 and 1869 may remain unaltered. The memorial contains a protestation against the erroneous supposition that "personal examination is deemed by prostitutes degrading and repulsive"; whilst it affirms that they cannot be induced to seclude themselves in the earlier stages of disease, when they can propagate it most effectually; and it concludes by expressing the belief that the temporary seclusion of diseased women in a more healthy moral atmosphere has been found to contribute, in no unimportant proportion of them, to their restitution to the paths of virtue, and the hope that the Home Secretary will not be unduly influenced by factitious opposition in extending the operation of the Acts.

SEWER VENTILATION.

WE have received a variety of proposals for obviating the dangers connected with the admission of sewer gases. There are of course the advocates of keeping out excrement from the sewers; but there is no proof whatever that sewer-air will be made harmless even if this were done. Then there are the advocates of ventilating shafts, persons who forget how totally different the conditions of sewers are from those of mines. All that such shafts would do would be to establish an inlet into the sewer near the bottom of the shaft, and a huge draught from that single point. Then there are a thousand forms of traps, the whole of which are liable to become a delusion and a snare to all who depend upon them.

We have repeatedly shown that the only real protection against sewer-gas is adequate ventilation of the sewers into the central roadways. London is the great example of success, for no one ever heard of typhoid fever being taken in the street.

DECREASE OF PAUPERISM.

FROM a recently published statement issued by the Local Government Board, it appears that there was a decrease of 33,036, or 3·6 per cent., in the number of paupers relieved in all England between Michaelmas and Midsummer last. And a comparison of the aggregate amount of pauperism at the end of the last Michaelmas quarter with the corresponding period of 1870 shows a decrease of 40,171, or 4·3 per cent. Taking the three divisions of England in which the principal manufactures are carried on (the North Midland and North Western counties, and Yorkshire), the number of paupers in the last week of September, 1871, was 201,441, against 215,605 in 1870, and 221,312 in 1869. In the metropolis the numbers for the same periods were 117,510, 128,403, and 128,577, the rate of diminution between 1871 and 1869 agreeing very closely with that of the manufacturing districts. Let us hope that the next quarterly official statement may record the continued decline of this dead weight on the ratepaying community of this country.

POOR-LAW MEDICAL RELIEF.

BY special invitation of the Farmers' Club of Framlingham, Dr. Rogers, President of the Poor-law Medical Officers' Association, on Monday last, gave an address in that town on the subject of Poor-law medical relief. Mr. Corrance, M.P., occupied the chair. In his usual convincing way, Dr. Rogers contrasted the faulty and expensive system adopted in England with the far more efficient and economical method in vogue in Ireland, and pointed out the bearing of the statistics he cited on the interests of ratepayers. It is surely a satisfactory sign when the bucolic mind can be diverted from the contemplation of fat beeves, at the most festive season of the year, to the consideration of so dreary a theme as the medical relief of the poor.

BRITISH HOSPITAL AT NAPLES.

A GREAT many ship captains complain that there is no British hospital at Naples, although some hundreds of merchant ships visit that port annually. It is said, too, that the treatment received by British seamen at the General Hospital is none of the best. It is impossible, of course, to establish an institution for sick seamen at every port frequented by British vessels, though there are many well-known places of the kind, notably that at Constantinople. But there are sufficient English residents at Naples to look after the welfare of our sick sailors; and if it be really necessary to build a hospital for their exclusive accommodation, we do not doubt that the funds would be forthcoming.

PAUPER LUNATICS.

THE Metropolitan Asylums Managers deserve the thanks of the public and of all humane persons for protesting against the removal to the lunatic asylum at Caterham of two paupers, aged respectively eighty and eighty-one. Both patients were feeble and very much exhausted on their arrival. One had to be placed in bed immediately, and is not expected to survive many weeks. Both are nearly imbecile from natural decay, and are quiet in manners. Surely they might have been left to spend the remainder of their existence in the workhouse, where they could be frequently visited by friends.

SMALL-POX.

SMALL-POX is reported as being still prevalent in Hamburgh, it appearing, from information published by the board of health of that city, that there were from August

19th to November 18th 5707 cases, 1047 deaths, and that at the latter date there were under treatment 696 cases. The statistics as regards vaccination are as follows:—

	Vaccinated.	Unvaccinated.
Recoveries	2954	1010
Deaths	347	700

An epidemic of small-pox has broken out in Trinidad and was progressing at the date of our last advices. The epidemic commenced at the latter end of August, and since that time (the 24th) to November 24th there have been 268 cases and 41 deaths.

AT a meeting of the managers of the Edinburgh Royal Infirmary held on Monday last, Mr. David Smith in the chair, Mr. Charles Hamilton Fasson, surgeon-major, was appointed to the office of superintendent of the Infirmary. Mr. Fasson has been twenty-seven years in the army—in India, Canada, and at home. He served for nine years in the 14th Hussars, and for thirteen years in the 53rd and 17th Regiments. During the last five years he has held the office of registrar of Herbert Hospital, Woolwich. There were 146 candidates, and Mr. Fasson only gained the post by one vote.

A WOMAN, the wife of a puddler at Bilston, has just been committed for trial at the next Staffordshire Assizes on the charge of having poisoned three of her children with antimony. What makes this case of singular importance is the fact that death took place in each instance without the cause being ascertained, the inquest and post-mortem of one leading to the exhumation and analytical examination of the abdominal contents of the others, with the result of finding sufficient antimony to account for death.

HOLBORN enjoys the unfortunate position of standing at the head of the fever-list. Out of 150 cases admitted to the Homerton Fever Hospital not less than 22 have been admitted from this single union. It is observed that case after case is admitted from the same houses, a circumstance which certainly does not speak well for the sanitary administration of the district.

OUR attention has been called to a letter in the *Kidderminster Shuttle* of the 9th inst., setting forth the grievous want of house accommodation for the lower classes existing in that town. It is of no use waiting for legislation in these matters; the best way to meet the difficulty is the formation of Industrial Dwellings Companies, such as are found to work so satisfactorily in London.

THE Secretary of the Croydon General Hospital has received from J. Horniman, Esq., of Coombe-cliffe House, the sum of £1000, to be placed to the credit of the building fund of the proposed new hospital. It is hoped that this example will stimulate other wealthy gentlemen of the neighbourhood to do their utmost for the advancement of the undertaking.

AN excellent bust of the late Dr. Bright has just been presented to the Royal College of Physicians by the widow of that illustrious physician. The bust conveys, perhaps, a slightly younger likeness than that possessed by the Medical and Chirurgical Society, but it is a capital portrait nevertheless, and a most satisfactory addition to the gallery of the College.

THE guardians of Holborn Union have resolved to appoint two additional nurses at St. Luke's, one for night and one for day. They have unfortunately refused to appoint any additional nurses at the Holborn Workhouse, where they were equally required.

A COURT-MARTIAL has recently been held on Assistant-Surgeon O'Toole, R.N., attached to the Portsmouth Division of Marines for charges of neglect of duty, which has ended in a sentence of severe reprimand.

DR. HANDFIELD JONES has been elected a councillor of the Royal College of Physicians, in the room of Dr. Sibson, now censor.

REPORT
OF
The Lancet Sanitary Commission
ON THE
STATE OF SCARBOROUGH.

No. II.

The Houses.—We have already remarked that there are comparatively few houses in Scarborough built back to back; there are, however, a considerable number really unfit for human habitation. They are the relics of the old fishing town, and the seafaring people still live in them. In the vicinity of the gas-works, in Quay-street, Potter's-lane, and the neighbourhood of Eastborough, there are a number of yards and narrow alleys, with houses the walls of which are rotten, the floors beneath the level of the ground, and the rooms small and without the possibility of ventilation. Many of these houses are ill-provided with sinks, and a few have no closet accommodation whatever. The yards, where there are any, are unpaved and undrained; whilst the seats of the public conveniences were found in such a dilapidated and filthy state that no one could use them. Scarcely anywhere is there proper accommodation for children. Such properties exist in every old town, and they are no doubt difficult to deal with. The Corporation have, however, effected some considerable improvements by the opening out of Eastborough, and it would probably be wiser to destroy them than to attempt to patch them up. But it should never be forgotten that it is in such places that disease lurks and pauperism flourishes. They are a continual source of public danger and expense. It is particularly unwise to keep up a festering focus of disease in a town the prosperity of which depends upon its prestige as a health-resort.

Excrement removal.—There are 5128 houses, and, setting aside hotels and public buildings, there are 2378 water-closets. As in a large proportion of superior houses there are several waterclosets, Scarborough cannot be regarded as a watercloset town. All the poorer parts are provided with privies, and in the newer streets there is one to every house. Many houses have both waterclosets and privies. The privies are constructed upon the correct principle of preventing large accumulations. But very generally the materials are too absorbent, and the workmanship is bad. It is then difficult, if not impossible, to keep them free from smell. There is also a frequent absence of ventilation, and in whole rows of houses the place is only separated from the larder by a four-inch wall. The Corporation employs a large staff of scavengers, who do their work at night during the summer. They are said to visit every house once a week. But there is often considerable opposition on the part of small families. The process always creates a nuisance, and it is not pleasant to be roused up in the middle of night for the key of a closet which, if left open for an hour or two, would be quite unusable. But we are by no means sure that the scavengers are quite as regular as represented. We found one case in which great complaints

were made. The head of a large family told the surveyor that her privy had recently been neglected for three weeks, whilst another woman naively remarked that the scavengers' visits were regular in winter, but when the town was full of visitors they had no time to attend upon poor people. In the better parts of the town complaints were made against the mode of removal. The men take away ashes and manure in baskets, and shoot it into carts; and during the process, the offensive dust, impregnated it may be by the contagion of some serious malady, is blown about in a manner certain to propagate disease. This objection would be met by the employment of tubs, either on the Nottingham or Rochdale plan. The latter has great advantages, not the least of which would be a diminution of the nuisance at the depôt near Seamer-road, to which we have already drawn attention. In either case the tubs should be removed in closed carts.

Nuisance removal and sanitary staff.—For some years past an elderly gentleman of independent means has been employed to act as nuisance inspector. This having been found very unsatisfactory, the post has been conferred upon the superintendent of police. The superintendent has had the occasional services of a policeman in plain clothes. This, we venture to think, is all wrong. The superintendent of police has enough to do to look after his own business, and the combination of sanitary inspector and detective is not a happy one. We had abundant evidence that the work is very imperfectly performed. During the year, for example, only 244 cases have been entered in the books, and these include 43 removals of patients to hospital and other trifling matters. The number of real nuisances dealt with is ridiculously small, and yet there was no difficulty in finding out cases wherein the services of an energetic officer would be of great use. For example, in the course of our inspection we met with stopped drains, filthy closets, yards covered with refuse, manure heaps which had not been removed for weeks, pigs in filthy sties and close localities, and manure pits full of stinking water, evidently without drains. There are no regulations as to the periodical removal of stable manure. The surveyor is probably the most active sanitary officer there is; but he is engaged on important works, and has to supervise a considerable staff of scavengers and workmen, so that he cannot be expected to search out defective house-drains, and nuisances popularly so called. Houses were found without a proper supply of water, and there is no one to enforce it. In fact, there is an absolute necessity for great improvement in the sanitary staff. There is no medical officer of health. Until the publication of the death-rate in our report last week no one knew what it really was, and, what is more, no one had the courage to ask for it. There are no means whatever of ascertaining the beginning of disease, or the localities in which the death-rate is the heaviest. People owning property in the south said all the evils were in the north, and *vice versâ*, but no one knows the truth. Meanwhile, everybody was satisfied that Scarborough was the healthiest town in England, as, indeed, it should be, but certainly is not.

Our recommendations are as follows:—

1. The immediate appointment of a medical officer of health and a permanent sanitary committee. The former to be assisted by the district Poor-law medical officer as deputy.

2. The appointment of a sufficient staff of sanitary inspectors, the relieving officers to be deputies.

3. That more attention should be given to the construction and condition of house-drains.

4. That the opinion of some eminent engineer should be taken as to the possibility of improving and ventilating the main sewers, with the object of relieving congestions, and obviating the irregular pressure of gases thereby occasioned.

5. The adoption of an improved method of scavenging, and of regulations for the systematic removal of stable manure.

6. The immediate adoption of a house-to-house inspection for the purpose of ascertaining the real state of the house accommodation with respect to external and internal ventilation, sinks, drains, privies, water-supply, and overcrowding.

7. The introduction of registration of disease, and the regular publication of the death-rate.

8. That means should be taken to enlighten all the inhabitants on sanitary questions, so as to raise the standard of public opinion as to their importance. This should be done by public lectures, and by the formation of sanitary associations in connexion with visitors of the poor, religious bodies, ladies, and working men.

In conclusion, we venture to warn the inhabitants of Scarborough against the danger of treating this report too lightly. We have endeavoured honestly to reveal the truth. We have not hesitated to withdraw erroneous statements when they were proved to be so, but the evidence is incontrovertible that the illness of H.R.H. the Prince of Wales, the death of Lord Chesterfield, and the illness of Mr. Sykes's servant were due to the insanitary condition of the town and the defective arrangements at Londesborough Lodge. The capital of a health-resort like Scarborough is its sanitary reputation. That reputation must be maintained at any necessary cost; this will not be done by hiding the truth and letting things alone. The future prosperity of the town depends upon the way this sad lesson will be used. The public will watch the action of the corporation with the most jealous interest. If they should allow a narrow-minded and false economy to paralyse their action, nothing can be anticipated but an unfavourable result. But if they should prove that they have the courage to meet the occasion manfully, and give the public the assurance of a sufficient sanitary organisation and publicity of facts, success cannot be problematical. It is within the power of the corporation to guarantee the wholesomeness of the town and its freedom from preventable diseases.

THE FLOGGING OF CRIMINALS.

On Wednesday last the punishment of flogging was inflicted on two felons in Newgate, when we were invited by Mr. Sheriff Bennett to send a representative to witness the proceedings, and this gentleman, by the courtesy of Mr. Gibson, the surgeon of the goal, had the opportunity of visiting the prisoners both before and after the infliction of the punishment. We requested a gentleman who has had experience of the use of the "cat" in one of her Majesty's services, and who would therefore be more *au fait* in the matter than a civilian, to act as our representative, and he has sent us the following report:—

I attended at Newgate on Wednesday last by your desire, and was kindly shown the prisoners in their cells by Mr. Gibson. No. 1, who was to receive forty lashes, was a muscular man of middle height, and seemed in perfect health. No. 2 was a smaller and less muscular man, who had been suffering from catarrh, on which account the punishment had been postponed. On proceeding to the punishment-room I found a species of pillory, in which the arms and legs of the convict were confined during punishment, but which has the manifest drawback that it is too low, so that the culprit's arms are kept down instead of up, and his body, consequently, is not held firmly, but can be swayed and twisted about—as actually happened—rendering it difficult to inflict the lashes properly, and allowing the culprit to make violent muscular efforts, which must be exhausting. The punishment was inflicted by two muscular men specially engaged for the duty, who were evidently no novices at it. The instrument was a "cat-o'-nine tails," resembling the naval "cat," and having knots at regular intervals on each tail.

No. 1 convict received forty lashes well laid on in twenties by the two executioners. The marks became apparent across the shoulders after the second stroke, but blood did not flow till the eighth. After this the part became more or less livid and bruised, but the actual amount of hæmorrhage was trifling, and the blood did not trickle below the seat of punishment. The effect upon the culprit as regards pain was undoubted, for after the third cut he began to moan and sob, and continued to do so to the end. He put on his shirt and walked away without any difficulty.

No. 2 convict was certainly let off more easily than No. 1. The lashes were fewer in number, and appeared to be laid on somewhat lighter, and though the back soon became livid and bruised I did not see any actual flow of blood. He

appeared to feel the punishment less severely, though he stood less firmly, and twisted about a good deal during its infliction. He also put on his shirt and walked away without difficulty.

I saw the culprits a few minutes afterwards in their cells. No. 1 was standing up; his skin was warm, but his circulation was evidently depressed, the heart's action being feeble and somewhat irregular; his breathing was shallow, but this was due to an involuntary restraint of the muscles of the chest consequent upon the tenderness of the back, which movement would have aggravated. Mr. Gibson ordered him to have his bed in the cell, that he might lie down if he chose to do so. No. 2 was also standing up, and was less depressed than his fellow. His skin was warm, his pulse regular and good in quality, and he breathed easily. The only complaint he made was of an aching about the heart, but this may be attributed to his evident apprehension prior to the punishment and also to the violent exertions he made during its infliction. I find Mr. Gibson's experience corresponds with my own—that no treatment is required for the back. Any blood effused coagulates and dries, the bruising passes off, and the culprit is able to resume his ordinary employment in twenty-four hours.

The punishment appeared to me to be about as severe as in the navy, where the number of stripes is limited to four dozen on the back; and not so severe as the same punishment inflicted with the "cat" on the nates, as was formerly the case with boys in the navy. I do not think the health of either culprit will in any way suffer from the infliction of the punishment, and only regret that other prisoners were not paraded, as a ship's company would be, to witness the carrying out of the sentence of the law.

We have thought it well to support the civil authorities in suppressing crimes of violence by thus recording the evidence of a skilled witness. We have striven hard and successfully to abolish the use of the lash in the public services, believing that it is debasing in its tendency, and becomes simply a torture when carried to the extent of hundreds of lashes as in former years. The part which THE LANCET took many years ago in connexion with the Hounslow flogging case will not be forgotten, nor the vigorous exertions which the late Mr. Wakley made on behalf of the soldier and sailor. At the same time the lash has a most decided effect upon the brutal dispositions of violently-disposed felons; and, feeling satisfied that no permanent injury is inflicted upon the culprit, we cannot but hold that the punishment, as at present inflicted, is a justifiable one.

COMPARATIVE HEALTH OF SEAMEN AND SOLDIERS.

DR. BALFOUR, F.R.S., the head of the Statistical Branch of the Army Medical Service, read an important and elaborate paper on the above subject at the Statistical Society on Tuesday, the 19th instant. It is, of course, nearly impossible to present our readers with an epitome of a paper like Dr. Balfour's, bristling as it is with facts and figures; and we must content ourselves with the brief recapitulation that he has himself afforded of the leading facts brought out by the data presented in the paper. The comparison only extended to troops and seamen serving at home and at Mediterranean stations.

Dr. Balfour introduced his subject by stating that upwards of thirty years had elapsed since the late Sir A. M. Tulloch read a paper to the Society in which a similar comparison was instituted between Her Majesty's soldiers and seamen in the Mediterranean; and he then briefly enumerated the great changes that had been made during the interval in the organisation and the sanitary and other conditions affecting the men of both services.

During the decade from 1859 to 1868 it may be stated that, on the home station, omitting wounds and injuries, the sickness has been one-ninth higher, the mortality 70, and the invaliding 2·28 per 1000 lower, in the navy than in the army. The result as to the mortality has been probably influenced by the much larger proportion of boys in the former. The excess of admissions in the navy has been chiefly from miasmatic diseases, and those of the respiratory and digestive systems, in boils, abscesses, and ulcers, and in accidents; while in the army there has been an excess in ophthalmia, venereal diseases, and the group of unclassed diseases. The excess of mortality in the army has been principally in tubercular diseases and those of the respiratory system. Compared with previous periods, there has been a great reduction in both sickness and mortality, the former much more marked in the navy, and the latter in the army.

In the Mediterranean the sickness has been lowest in the army, and the mortality in the navy; but the invaliding from the latter has been nearly double that of the army. The excess of admissions in the navy has been chiefly in miasmatic diseases; while in the army the admissions were higher in remittent and continued fevers, cholera, and ophthalmia, venereal diseases, and the unclassed group. The excess of mortality in the army was due to miasmatic diseases, to diseases of the circulatory and respiratory systems, and the unclassed diseases; while in the navy there was an excess in tubercular diseases, and in boils, abscesses, and ulcers. The high ratio of invaliding from the navy was chiefly caused by tubercular diseases, but it was higher than in the army by all classes of diseases, except those of the respiratory system and the unclassed. Compared with the previous period, there has been a considerable increase in the admissions into hospital in the navy and a decrease in the army; also a great reduction in the deaths of both services, much more marked however in the army than in the navy.

When the statistical labours were first commenced, thirty-five years ago, the mortality of the army, so far as it could be ascertained, amounted to at least 3 per cent. annually; on the average of the five years 1865-69, it was under 1½ per cent.—to speak precisely, it was 16·55 per 1000. Taking the strength of the army, exclusive of colonial corps, from the army estimates of 1871-72 as 184,000 non-commissioned officers and men, the difference in the mortality represents a saving of above 2300 lives annually—a saving of no small importance, and representing, even at the lowest estimate of the cost of production of a trained soldier, a large sum of money, which would be necessary to replace these men.

DRAINAGE OF RICHMOND AND THE THAMES VALLEY.

THE Richmond Vestry have probably thrown away £100. Some time back they offered this sum as a premium for the best scheme for dealing with the sewage, in compliance with the requirements of the Thames Navigation Act (1866) and the Thames Conservancy Act (1867). Nineteen plans, comprising twenty-four schemes, were sent in; and, with the usual perspicacity of vestries, the premium has been awarded to a plan of filtration, based on the experience of Rio in South America, and reported on favourably in 1854 by Professor Way. We can only express our surprise that this wonderful scheme has never since been heard of, especially as it promises to manufacture a valuable manure without nuisance close to the town, and to afford the fortunate ratepayers a handsome profit on their enterprise.

The Vestry seem unable to look beyond the requirements of their own locality. Several plans were sent in combining Richmond, Twickenham, and Kingston in a common scheme; but the Vestry have apparently taken no steps to ascertain whether these plans are likely to be acceptable to their neighbours. They have not even submitted them to public criticism, and they arrived at a conclusion against the adoption of an irrigation farm without, as far as we know, even visiting the sites proposed. It is obvious that such a conclusion cannot stand, the less so because Mr. Bazalgette has just proposed a scheme for dealing with the drainage of the Thames area, extending from the metropolis to Windsor. Mr. Bazalgette's plans are now deposited in

the vestry offices of the interested towns, where they may be inspected by the public.

The area proposed to be dealt with is about one hundred square miles, and contains a population of about 300,000. The sewage now passes into the Thames. Mr. Bazalgette proposes to purchase 3000 acres of sterile land between Woking and Bagshot, to be irrigated by the diverted sewage. Part of the sewage would be conveyed by gravity to Hampton, where it will be lifted by pumping, and allowed to flow by gravity to Chertsey. Other main sewers commencing at Eton and Windsor would bring the sewage from that district to the same point, where a second pumping-station would be made to raise the united volume of sewage to a reservoir commanding the land intended to be taken as a farm. It is proposed to provide for double the present population, and the rainfall and subsoil drainage will be excluded from the new system as far as practicable. Mr. Bazalgette estimates the total expense at about one million, to be paid by a rate which would commence at 4*d.* in the £1, and be rapidly reduced to ½*d.* He proposes a board of commissioners, with powers to take land, borrow money, and raise a special rate.

We regard this scheme with great favour, and would recommend its serious consideration by the various local boards.

MEDICAL DECLARATION RESPECTING ALCOHOL.

THE following declaration is published, signed by about 250 of the leading medical men in London and the provinces:—

"As it is believed that the inconsiderate prescription of large quantities of alcoholic liquids by medical men for their patients has given rise, in many instances, to the formation of intemperate habits, the undersigned, while unable to abandon the use of alcohol in the treatment of certain cases of disease, are yet of opinion that no medical practitioner should prescribe it without a sense of grave responsibility. They believe that alcohol, in whatever form, should be prescribed with as much care as any powerful drug, and that the directions for its use should be so framed as not to be interpreted as a sanction for excess, or necessarily for the continuance of its use when the occasion is past.

"They are also of opinion that many people immensely exaggerate the value of alcohol as an article of diet, and since no class of men see so much of its ill effects, and possess such power to restrain its abuse, as members of their own profession, they hold that every medical practitioner is bound to exert his utmost influence to inculcate habits of great moderation in the use of alcoholic liquids.

"Being also firmly convinced that the great amount of drinking of alcoholic liquors among the working classes of this country is one of the greatest evils of the day, destroying—more than anything else—the health, happiness, and welfare of those classes, and neutralising, to a large extent, the great industrial prosperity which Providence has placed within the reach of this nation, the undersigned would gladly support any wise legislation which would tend to restrict, within proper limits, the use of alcoholic beverages, and gradually introduce habits of temperance."

THE CHOLERA.

RUSSIA.

AT the meeting of the Epidemiological Society on the 11th inst. an interesting paper on recent Cholera in Russia was read by Mr. W. D. Michell. The facts related showed that cholera had declared itself in South-Eastern Russia in Europe in August, 1869, and that from that time to the present the disease had never been absent from the kingdom. But the epidemic had prevailed with curiously different degrees of intensity in different provinces. This fact was very clearly shown by a shaded map, prepared by Mr. Michell from data obtained from published official returns of the Russian Government. This paper was further illustrated by elaborate analyses of returns showing the mortality of the epidemic, and of the meteorological returns of the Central Imperial Observatory for a portion of the time during which the epidemic prevailed.

Mr. Michell contented himself with detailing the principal facts he had brought together, with much labour, concerning the progress of the epidemic in the empire (west of the Ural Mountains) generally. He touched also upon the prevalence of the disease in the Caspian and Caucasian provinces of the empire, and on the Russian shores of the Black Sea. He did not attempt to suggest any explanation of the more striking facts given, very properly observing that our ignorance of the state of the greater portion of the Russian empire, as affecting the spread of cholera, would render such attempt futile. He dwelt, however, at some length upon the prevalence of cholera in St. Petersburg, and gave numerous instructive details of the many localising causes of the disease existing there, and of the peculiar meteorological conditions likely to foster the disease which existed in the past and present year.

TURKEY.

The following are numbers of daily deaths in Constantinople from Oct. 30th to Nov. 19th inclusive—namely, 57, 62, 39, 46, 21, 24, 28, 24, 44, 61, 62, 87, 56, 45, 59, 48, 65, 60, 55, 38, 54. The sanitary cordon around Haskeni has been discontinued. Cholera has likewise made its appearance at Jeddah. At Galatz, also, cases are reported to have occurred; this town is in anything but a perfect sanitary state.

MEDINA.

It is reported that in Medina the deaths from cholera between Sept. 21st and Oct. 4th (twelve days), were 773, and that all caravans from that place to Mecca are obliged to perform quarantine before being allowed to enter that city.

Cholera is also stated to have broken out at Astrakan.

ST. JEAN D'ACRE.

A death from cholera of a passenger from Constantinople is said to have taken place at St. Jean d'Acre.

Correspondence.

"Audi alteram partem."

DISCHARGE OF UNCURED PAUPER LUNATICS.

To the Editor of THE LANCET.

SIR,—As one of the Visitors of the Sussex County Lunatic Asylum, I readily express my high appreciation of any opinion expressed by my friend Dr. S. W. D. Williams on any subject with which he is acquainted. His letter, however, in your last impression, describing the discharge of uncured but harmless and chronic patients to the care of their friends as something new, and his suggestion of the difficulty of "initiating" such a plan in Middlesex, prove the inexpediency of the medical superintendent of one asylum attending to the practice of other asylums, especially if the writer labours under the disadvantage of imperfect information on the practice of the asylums adverted to.

The practice of discharging patients, though still uncured, to the care of friends, which Dr. Williams describes as "his" plan is not only "initiated" in Middlesex, is not only not new, but has been in operation long before my friend had commenced his professional career; but the greatest caution is requisite in ascertaiping the motives and capabilities of the persons to whom the patient is to be entrusted, and Dr. Williams's faith in "the advancing enlightenment of the age," as preventing ignorant, injudicious, and often untrustworthy relatives from ill-treating or neglecting uncured patients, is more robust than mine; and while at Hanwell we are constantly discharging uncured patients to the care of competent relatives, we are as constantly refusing applications when, on investigation, we

find that proper accommodation and suitable supervision are manifestly wanting.

Dr. Williams's suggestions for the visitation of such patients by paid officials, and for the weekly allowance of money to these poor people, are open to two objections. One is, that in the present state of the law they are not practicable; or next, if practicable, they would insure "that infliction of further pecuniary burdens on the already over-taxed ratepayers" which Dr. Williams deprecates.

I am, Sir, your obedient servant,

P. NORTHALL LAWRIE,

Dec. 18th, 1871. Chairman of the Hanwell Asylum Committee.

THE THEORY AND TREATMENT OF CHOLERA.

To the Editor of THE LANCET.

SIR,—It is perhaps unnecessary at the present season to occupy the attention of your readers with any further remarks on the true theory and treatment of cholera. But before the discussion is closed, it may be useful to direct notice to the following important admissions, which, so far as can be gathered from his remarks on the subject, are expressed or implied in Dr. Johnson's communication to THE LANCET of Dec. 9th, in reply to my late paper "On some Physiological Errors connected with Cholera."

1. That temporary albuminuria is not *conclusive* evidence of blood-poisoning.

2. That cyanosis is not a *diagnostic* sign of cholera.

3. That the secretion of urine by the fœtus is not "*even more scanty* than that of a patient in cholera collapse."

When Dr. Johnson pleads that my so-called "merciless criticism" of his statements respecting a certain "interesting physiological correlation," to which he has referred at some length, is unjust, because a lately published paper on the subject (Aug. 1870) has been selected instead of one of a much earlier date (Feb. 1866), he simply succeeds in illustrating the truth of my remark, that the unsoundness of his theory "becomes more apparent after every fresh effort on the part of the author to retrieve his position."

"Our failures may be as instructive as our successes" was the sad but hopeful comment of Dr. Johnson himself on the treatment of cholera at King's College Hospital in 1866, for no temporary success of a theory can justify any continued failure in treatment; and it is reassuring to find that the lesson learnt on that occasion has not been forgotten. For although the opinions of the distinguished Professor of Medicine at King's College respecting the nature of the disease are still apparently unchanged, yet his opinions respecting its treatment have since undergone a marked and progressive change for the better, in consequence of which he no longer advocates "the necessity of a cathartic method of treatment in the widest sense of that term"; and his theory is now very far from being in strict accordance with his practice. "The good effects of heat" were, we have been assured by Dr. Johnson in his *Notes on Cholera* in 1866, "unquestionable"; whilst cold water was decidedly injurious, in consequence of its "diminishing the vascularity of the mucous membrane, and thus interfering with the excretion of the morbid poison." It would be, of course, impossible for me to fix the exact date at which the decisive change in Dr. Johnson's opinions on the treatment of cholera occurred. It is sufficient to know that a very great and a very praiseworthy change of opinion has lately happened, and that he has at last kindly consented to be guided by the experience of others in the revision of his plans for the future treatment of the disease. With reference to this subject, it is interesting to note that in place of hot liquids to drink, and of hot injections into the rectum, he is, *for the present*, inclined to give an abundant supply of cold water; and we have been quietly led to infer that castor oil may, *in most curable cases*, be safely omitted.

We are quite content to rest and be thankful, since so much has been gained in the warfare against a fatal error. "The copious imbibition of pure cold water," with perhaps the addition, which has been lately recommended, of a little phosphoric acid, "will suffice for the cure of most curable cases"; and when the pathology of the disease is better understood, it may probably be admitted that the application of castor oil and *hot liquids* to the alimentary mucous membrane during choleraic collapse is painfully suggestive of the application of petroleum to a house on fire.

I am, Sir, your humble servant,

Park-place, Upper Baker-street, December 11th, 1871. WILLIAM SEDGWICK.

*** This controversy must really end now.

THE SANITARY STATE OF WEST NEWTON.

To the Editor of THE LANCET.

SIR,—In your report on West Newton one or two inaccuracies occur, which I trust you will allow me to correct. I should not presume to do so, but that my local knowledge extends over eleven years, during which time I have attended the majority of the sick in the village.

The wells are not all shallow, but there seem to be two water-bearing strata at least, besides that supplying the surface water, and in two epidemics of typhoid four distinct water-supplies have been used by different batches of patients.

In 1860, after a very wet summer, an epidemic commenced in September. In 1870, again in September, another epidemic commenced.

The first cases in 1860 were all supplied from a well which is 32 feet deep—*i.e.*, from surface of ground to surface of water (it has been made lower since 1860, but was then a deep well). It is near the bottom of the hill. The second batch of cases in 1860 were at the top of the hill, and were supplied with water from a shallow surface well; a new one, 13 feet deep, has since been made.

In the 1870-1 epidemic, the first cases were using water from a surface well near the bottom of the hill, and the second batch, water from a well 9½ feet deep, and half-way up the hill.

In the yard called Billing's I have not had a case of typhoid, though, with the rest of the village, it has been visited by scarlet fever. There are no manure heaps nor privies in this yard, the privies being at a considerable distance down the hill, while the well is quite at the top of the hill, the depth being 15 feet 6 inches from surface of ground to surface of water. A privy in the adjoining yard may possibly affect it.

I remain, Sir, yours very faithfully,

Grimston, Lynn, Norfolk, Dec. 18, 1871. A. E. BARRETT.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

THE annual meeting of the Belfast General Hospital was held last week in the Town Hall, Belfast, under the presidency of the Mayor. The honorary secretary, Mr. Macrory, submitted the report of the general committee, from which it appeared that the total income of the institution from all sources, during the year, amounted to £1793, as compared with £4260 of the preceding year. The medical school connected with the hospital continues to be a decided success, and, during the year, 144 students attended the lectures and hospital dressings, being 32 over last year. Mr. Macrory also submitted a report in reference to the establishment of a Nurses' Home and Training School in connexion with the hospital. The reports having been adopted, a resolution was passed, on the motion of Dr. Browne, R.N., expressing deep sympathy with the Queen and the Princess of Wales in the anxiety and distress caused by the illness of the Prince of Wales.

A munificent donation has lately been made by Samuel Martin, Esq., of Belfast, who has purchased twenty-eight acres of land in one of the healthiest and most picturesque sites in the vicinity of that town, which he intends to hand over, clear of rent, to trustees for the following purposes:—One-half to be devoted to the erection of cottage-hospitals for orphan children, preference being given to those suffering from spinal affections. On the construction of these hospitals Mr. Martin purposes to expend £2000, and to give them an endowment of £1000 a year for at least five

years. The other moiety of fourteen acres he proposes to give to the Belfast General Hospital as a site for a convalescent home, an adjunct to the present excellent institution which has been long wished for.

Fever, of a most malignant type, is at present raging in Ballycastle, County Mayo. It is chiefly confined to young persons, but several adults have been attacked. The existence of this disease is ascribed to the neglected sanitary condition of the town; and in order to prevent any spreading of the affection, the national schools in that locality have been closed for the present.

Small-pox in Belfast has been lately decreasing. In the Belfast Union Hospital, the number of admissions for the week ending Dec. 9th amounts to 21, against 35 for the week preceding. In Dublin the disease is still prevalent.

At a late meeting of the Pathological Society of Dublin, Mr. Tufnell showed a triple aneurism, which involved the aorta and subclavian and axillary arteries. The patient, a soldier aged thirty-six, had during life a tumour above and below the left clavicle, which pressed the shoulder to the ear and exhibited the usual thrill with pulsation. The pain was so intense that six grains of morphia were injected subcutaneously daily to relieve his anguish. After death it was found that the clavicle was eroded, the first rib absorbed, whilst the second rib was nearly gone, and the third, fourth, and fifth were also worn from the pressure of the aneurism.

At the same meeting Dr. Stokes detailed a case of acute cancer in a young man, aged twenty-two, who had been in good health until ten weeks previously, when he got a wetting. There was then a swelled state of the legs, anasarca, and ascites. In a short time several nodules were noticed over the abdomen, and at the sterno-clavicular articulation a similar tumour was perceptible. Some of these nodules grew in forty-eight hours. The patient soon succumbed to a wasting diarrhœa, and, on examination after death, the nodules were found to be something between colloid and encephaloid cancer, whilst the lungs, mesenteric and intestinal glands, heart, and pleura, were studded with cancerous deposits; but the liver was exempt from the disease. It should be mentioned that this unfortunate person had been addicted to intemperance from some disappointment, his daily allowance being eighteen glasses of whisky besides porter.

Dublin, December 19th, 1871.

Obituary.

PAUL DUBOIS.

THE late Professor Paul Dubois, born in 1795, offers a rare example of a son taking advantage of the great reputation and influence of his father to gain, by persevering exertion, a high place in the medical profession. Antoine Dubois, for many years surgeon and professor at the Maternity of Paris, early associated his son in his labours, and initiated him at the hospital in the more difficult branches of the obstetric art. The young physician, conscious, however, that the specialist should embrace the whole range of medicine, competed for an assistant-professorship at the Faculty, and obtained it. From various circumstances, in which politics had a share, it was only in 1834 that the Chair of Obstetricy of the Faculty was put up to competition. Dubois fought hard for it against a formidable competitor, and was appointed. From this time his teaching became widely known and highly appreciated. From all parts of the world medical men and students flocked to his lecture-rooms and wards, as the Professor was particularly eloquent and clear. The visits at the bedside were eminently instructive, as M. Paul Dubois had great skill in diagnosis, and a peculiar facility in imparting knowledge. It is to be regretted that he did not consign the fruits of his experience to a didactic work, but some of his pupils have given many of his facts and opinions to the world.

The practice of the deceased of course became very extensive and lucrative, but he was always noted for his kindness and consideration for the poor women who came under his care; his acts of benevolence were numerous. His brilliant and useful career was suddenly arrested about twelve years ago, when the late Professor was sixty-four years of age. His mind became obscured, the first indication being loss of memory. The malady steadily progressed, and for the last ten years the eminent obstetrician's mental faculties had been quite in abeyance. As the intellect faltered, the nutrition of the body, as usual, increased; and from a frail, sickly man, Dubois became hale and strong. He retired into the country where his children surrounded him with the tenderest care, and died a few days ago at the age of seventy-six. It is remarkable that a series of eminent medical men of Paris have suffered from mental maladies—Jobert de Lamballe, Cazeaux, Malgaigne, and others.

ERASMUS MADOX MILES,

OF HEAVITREE, EXETER.

DR. MILES died on the 1st inst. Having attended his customary duties of the day, he went down his garden to the stables (in the absence of his man-servant, who was ill) to feed his favourite horse. He then came in, and was sitting by his fireside reading, when he was taken ill, suddenly falling off his chair. When his housekeeper went to take in his tea she knocked twice, and, receiving no answer, opened the door, and found her master dead on the floor. Dr. Miles was highly respected both by rich and poor, and the latter will long feel his loss, as he was in the habit of attending a large number of them gratuitously. In early life he was articled to Mr. Hodge, of Sidmouth; subsequently he studied at St. Bartholomew's Hospital. He was a good classical scholar, and a man of good general culture. He was formerly physician to the Exeter Dispensary, and for more than thirty years practised at Heavitree. He was buried at Heavitree on the 6th instant. The churchyard was crowded with parishioners, more especially the poor, and as the grave closed over the remains of him who had been to them so true a friend in their sickness and affliction, their tears testified how much he was beloved.

DR. COGHLAN,

OF NOTTING-HILL.

A NUMBER of the late Dr. Coghlan's friends and patients of all classes have recently erected a handsome monument to his memory at Kensal-green Cemetery, which records, in suitable terms, the very high estimation in which he was held. We very briefly noticed Dr. Coghlan's death from acute phthisis on the 26th December last; but it appears to us that his professional abilities, the unselfish nature of his character and personal worth, are deserving of a more extended notice than we then gave. Dr. Coghlan studied at University College, London. He became a member of the College of Surgeons of London, a Licentiate of the Royal College of Physicians of Edinburgh, and a M.D. of St. Andrews. He practised during seventeen years at Clarendon-road, Notting-hill, and with such success that latterly his professional income was nearly £2000 per ann. He was connected with the Notting-hill Dispensary and other charitable institutions, and was much beloved by the poor. We have reason to know that some of the leading men in the profession who had been brought into contact with the late Dr. Coghlan, in the way of consultations, entertained a high opinion of his professional and personal qualities.

THE COLLEGE OF SURGEONS.

AT the ordinary meeting of the Council on the 14th inst., the report of the Committee in reference to the pamphlets issued by Mr. George Washington Evans, of Reading, was read as follows:—

Your Committee—appointed on the 8th June last to consider and report to the Council upon the letter of the 14th May last from Mr. J. P. Wilton, Honorary Secretary to the Gloucestershire Medical and Surgical Association, and the previous correspondence in relation to the pamphlets issued by Mr. George Washington Evans, of Reading, a member of the College—have taken the subject into consideration at two meetings, viz., on the 5th July last, and on this date, and have agreed to the following report, viz.:

That in the opinion of your Committee the pamphlets circulated by Mr. George Washington Evans are, in the words of clause 2, section xvii., of the

bye-laws "prejudicial to the interest" and "derogatory to the honour of the College," and "disgraceful to the profession of surgery."

And that your Committee accordingly recommend that notice should be given to Mr. Evans that such is the opinion of the Council; and that if any further distribution of these or similar pamphlets be made by him, the Council will proceed to deal with him under section xvii. of the bye-laws.

The following resolution, involving a slight alteration in the draft scheme for an examining board for England, was adopted by the Council:—

That, in pursuance of the opinions of the Committees of the two Colleges the suggestion of the University of London that the nomination of Examiners should take place annually be adopted, provided that the two Corporations, the Colleges of Physicians and Surgeons, can legally give effect to it.

The report of the Committee on the wording and mode of issuing the several diplomas of the College was read and adopted.

That in the opinion of your Committee each of the several diplomas granted by the College should be issued on the direct authority of the Council, be signed on behalf of the Council by the President, or, in his absence, by one of the Vice-Presidents, and bear the College Arms, and that the wording of each diploma should be altered accordingly.

The resolutions agreed to by the Board of Examiners in Dental Surgery on the 2nd of November, 1871, for the consideration of the Council, were adopted:—

1. That it be recommended to the Council that paragraph 10 of the Regulations relating to the Diploma in Dental Surgery be altered as follows:—
   10. Of having attended at a recognised dental hospital, or in the dental department of a recognised general hospital, the practice of dental surgery during the period of *two years* (instead of during *two winter and two summer sessions*).
2. That it be reported to the Council that, in the opinion of this Board, it is desirable that the diploma in Dental Surgery should bear the College Arms, and that the diploma should be so altered in form as to admit of its being signed by the President of the College as well as by the Examiners.
3. And that it be recommended to the Council that a ticket of admission to the museum, to the library, and to the College lectures be presented to each candidate on his obtaining the diploma in Dental Surgery.

Sir James Paget, Bart., gave notice of the following motion at the next meeting of the Council:—

That it is desirable that before proceeding to any nomination of members for election to the Fellowship under clause 5 of the charter of 1852, the Council should determine the conditions under which the election should take place.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At an extraordinary meeting of the College on the 18th inst. the following gentleman was admitted a Fellow:—

Bishop, Thomas, M.D. Aberd., Rue de Matignon, Faubourg St. Honoré, Paris.

At the same meeting, the following gentlemen, having conformed to the bye-laws and regulations and passed the required examinations, were granted licences to practise Physic, including therein the practice of Medicine, Surgery, and Midwifery:—

Bailey, Francis James, M.R.C.S., Grove-street, Liverpool.
Brabant, Thomas Hughes, M.R.C.S., North Audley-street.
Carr, William Ward, M.B. Lond., Lee-grove, Blackheath.
Coomber, Frank, M.R.C.S., Trinity-square, London.
Davies, Arthur Evelyn, M.R.C.S., Penner House, Newport, Mon.
Eardley-Wilmot, Robert, M.R.C.S., King's College Hospital.
Franklin, George Cooper, M.R.C.S., Victoria-park Hospital.
Fraser, John, M.D., Toronto, Strabane, Ontario, Canada.
Graham, James Elliot, M.D., Toronto, Canada.
Henming, John Lamond, M.R.C.S., Southwick-place, Hyde-park.
Jalland, William Hamerton, M.R.C.S., Guy's Hospital.
Langridge, George Thomas, M.R.C.S., Myddelton-square.
Lees, Frederick Arnold, M.R.C.S., Meanwood, near Leeds.
Parker, Walter Augustus, M.R.C.S., Cathcart-road, Brompton.
Rees, Howell, M.R.C.S., Ystalyfera, Swansea.
Rowland, Edward Roger, M.R.C.S., St. George's-place.
Ryley, Henry, L.R.C.P. Edin., Fulbourn, Cambridge.
Sergeant, Edward, M.R.C.S., St. Thomas's Hospital.
Todd, Wm. James, M.R.C.S., Gloucester-road, Regent's-park.
Younger, Edward Geo., M.R.C.S., Holly-mount, Blackheath-hill.
Duke, Douglas William. (Passed his exam. in Medicine, July, 1871, and has obtained a recognised qualification in Surgery.)

The following passed his primary professional examination:

Murphy, John Francis, Queen's College, Cork.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Dec. 14th:—

Bosworth, John Routledge, Sutton, Surrey.
Grayson, Francis Dorrell, Henley-on-Thames.
Harris, John Delpratt, Exeter.
Hopkins, Frederick Fraser, Henley-in-Arden.
Milliner, Edward, Birmingham.
Moseley, William Arthur, Nassau, Bahamas.
Pitt, Isaac, Birmingham.

As Assistant in Compounding and Dispensing Medicines:—

Jones, Morgan, Chipping Sodbury.

On the same day the following gentlemen passed their first professional examination:—

Alfred Ernest Cave, London Hospital; George John Eady and Francis James Joynes, King's College; William John Gard, Guy's Hospital; Alfred Vavasseur Griffith and William Edmond Parkes, Queen's Coll., Birmingham; Henry Bird Vincent, St. Bartholomew's Hospital.

DR. ALFRED MEADOWS has been elected a corresponding member of the Gynæcological Society of Boston.

DR. TILBURY FOX has been elected a corresponding member of the New York Dermatological Society.

DR. ROBERT BEALES has been placed on the Commission of the Peace for Cheshire.

HEALTH OF EDINBURGH.—Fever, we understand, is on the decline in Edinburgh, but small-pox is still raging there, more especially in the south side. Last Wednesday there were no fewer than eighty cases in Watson's Hospital, and on Sunday there were seventy-five. Persons hearing of an outbreak of the disease are desired to report it at once at the Medical Officer of Health's Office, in the Central Police-buildings, High-street, in order that no time may be lost in dealing with the case.

HUTCHINSON'S SYPHILITIC KERATITIS.—M. Panas brought forward, at a meeting of the Surgical Society of Paris, Nov. 15th, 1871, several cases of keratitis which seem to him to disprove some of the views of Mr. Hutchinson. The author considers that some doubts may be raised as to this diffused keratitis being always connected with hereditary syphilis. Messrs. Demarquay, Giraud Teulon, and Giraldès spoke in favour of Mr. Hutchinson's views, and Messrs. Dolbeau and Perrin against. All the speakers were unanimous as to the skill and originality displayed by Mr. Hutchinson.

Medical Appointments.

ALEXANDER, Dr. R. G., has been appointed an Honorary Medical Officer to the Bradford Fever Hospital.

ARNOLD, R. O., L.F.P. & S. Glas., has been appointed Medical Officer for the Chesham No. 2 District of the Amersham Union.

BANKART, J., F.R.C.S.E., M.B., has been appointed a Surgeon to the Devon and Exeter Hospital, and Consulting Surgeon to the Devon House of Mercy, Bovey Tracey, vice P. C. Delagarde, F.R.C.S.E., deceased.

BEACH, FLETCHER, M.R.C.S.E., has been appointed House-Surgeon to the Hospital for Sick Children, Great Ormond-street, vice J. O. Sankey, M.R.C.S.E., resigned.

BOTT, J., M.R.C.S.E., has been appointed Resident Medical Officer to St. Mary's Hospital for Diseases of Women and Children, Quay-street, Manchester.

BURROUGHS, G. E. E., L.K.Q.C.P.I., M.R.C.S.E., has been elected Medical Officer and Public Vaccinator for the Prees District of the Wem Union, Salop, vice T. Wetherhead, F.R.C.S.E., deceased.

CHURCHILL, J. F., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Chesham No. 1 District of the Amersham Union, Bucks, vice G. Faithorn, M.R.C.S.E., deceased.

COLES, G. C., M.R.C.S.E., has been appointed Assistant-Surgeon to the Central London Ophthalmic Hospital, Gray's-inn-road.

COULING, H., M.R.C.S.E., has been appointed an Assistant-Surgeon to the Sussex County Hospital, Brighton, vice F. A. Humphry, F.R.C.S.E., resigned.

COURTENAY, H. B., L.F.P. & S. Glas., has been appointed Medical Officer for the South or No. 1 District of the Parish of St. George-in-the-East, vice Sutcliffe, appointed to District No. 2.

FRASER, A., M.D., has been elected a Physician to the Royal Infirmary, Aberdeen, vice A. Harvey, M.D., L.R.C.S.Ed., resigned.

GAIRDNER, Dr. J., has been appointed Certifying Factory Surgeon for Crieff, Perthshire, vice J. Tait, M.D., deceased.

GRANT, F., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for District No. 4 and the Workhouse of the Market Harborough Union, vice J. Francis, M.R.C.S.E., resigned.

GRANT, Mr. W. T., Secretary to the South Staffordshire and Wolverhampton Hospital, has been appointed House-Governor and Secretary to the General Hospital, Birmingham, vice Mr. F. Fowke, elected General Secretary to the British Medical Association.

HICKS, G. A., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Harrold District of the Bedford Union, vice J. B. Bodilly, M.R.C.S.E., resigned.

HOBSON, W. E., M.R.C.S.E., L.R.C.P.Ed., has been appointed Resident Medical Officer to St. Mary's Hospital for Diseases of Women and Children, Quay-street, Manchester.

HUGHES, Mr. H. E. G., has been appointed a Resident Surgeon to the Edinburgh Royal Maternity Hospital.

HUGHES, R., M.D., has been elected Medical Officer of Health for Penmaenmawr.

HUMPHRY, F. A., F.R.C.S.E., has been appointed a Surgeon to the Sussex County Hospital, Brighton, vice G. Lowdell, F.R.C.S.E., deceased.

LIDDARD, T., L.R.C.P.L., M.R.C.S.E., has been elected Medical Officer for the 5th (new) District of St. Mary Abbott's, Kensington.

LOWE, J., M.B., C.M., has been appointed an Assistant Medical Officer to the Durham County Asylum, Sedgefield, Ferryhill.

MITCHINSON, G., L.K.Q.C.P.I., M.R.C.S.E., has been appointed Medical Officer to the new County Gaol for the parts of Lindsey, Lincolnshire.

MORRIS, P. J. L., M.R.C.S.E., has been appointed Medical Officer for District No. 1 of the Blything Union, Suffolk, vice Robinson, resigned.

MORRISH, T. F., M.R.C.S.E., has been reappointed Medical Officer and Public Vaccinator for District No. 2 of the Toxteth-park Township.

NICOL, Dr. P., has been appointed an Honorary Medical Officer to the Bradford Fever Hospital.

NOAKES, S. S., L.R.C.P.L., M.R.C.S.E., has been appointed House-Surgeon to the Teignmouth, Dawlish, and Newton Dispensary and Infirmary, vice C. H. Hines, M.R.C.S.E., resigned.

PEACOCK, E., M.R.C.S.E., has been appointed Certifying Factory Surgeon for the District of Nuneaton, Warwickshire, vice F. E. Eaton, L.R.C.P.Ed., L.F.P. & S. Glas., deceased.

POCOCK, C. J., M.R.C.S.E., has been appointed Surgeon to the Deaf and Dumb Institute, Brighton, vice G. Lowdell, F.R.C.S.E., deceased.

RIDDALL, J., L.F.P. & S. Glas., has been appointed Medical Officer to the Bank Coal Company, New Cumnock, Ayrshire, vice James Lambie, L.F.P. & S. Glas., appointed to the Lowick District, Glendale Union.

RUCKLEY, H. R., L.R.C.S.I., has been elected Medical Officer for District No. 5 of the Woodbridge Union, Suffolk, vice C. E. Covey, M.R.C.S.E., resigned.

SANDWELL, E., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer to St. Andrew's Home for Boys, Soho.

SMITH, J. P., M.R.C.S.E., has been appointed House-Surgeon to the Birmingham and Midland Eye Hospital, vice F. H. Hodges, L.R.C.P.Ed., M.R.C.S.E.

STAINTHORPE, T. E., L.R.C.P.Ed., M.R.C.S.E., has been elected Medical Officer for the Western Division of District No. 3 of the Hexham Union, Northumberland, vice T. Stainthorpe, M.D., L.R.C.P.Ed., M.R.C.S.E., resigned.

SUTCLIFFE, G. G. A., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the North District of the Parish of St. George-in-the-East, vice B. Baker, M.R.C.S.E., resigned.

TURNER, G. E., L.R.C.P.Ed., M.R.C.S.E., has been appointed Assistant-Surgeon to the Stockport Infirmary, vice C. H. Mayhew, L.R.C.P.L., M.R.C.S.E.

VELLS, R. S., M.D., L.R.C.S.Ed., has been elected Medical Officer and Public Vaccinator for the Eastern District of the Paisley-bridge Union, vice R. H. Dawson, M.R.C.S.E., resigned.

WALKER, D., L.K.Q.C.P.I., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Assistant Medical Officer to the Chorlton Union Workhouse at Withington, vice H. W. Webster, M.R.C.S.E., resigned.

WEBB, H. G., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer and Public Vaccinator for District No. 1 and the Workhouse of the Northleach Union, Gloucestershire, vice M. O'M. Knott, L.R.C.P.Ed., L.R.C.S.I., resigned.

WOODWARD, E., L.R.C.P.Ed., M.R.C.S.E., has been appointed Surgeon to the Lynn and Sutton-Bridge Branch of the Great Northern Railway Company, vice T. M. Kendall, F.R.C.S.E., deceased.

YOUNG, A., M.R.C.S.E., has been appointed House-Physician to the Seamen's Hospital, Greenwich, vice Daphtary, whose appointment has expired.

Births, Marriages, and Deaths.

BIRTHS.

CASTIN.—On the 12th inst., at Market Harborough, the wife of John Q. Castin, M.R.C.S.E., of a daughter.

CHAMBERS.—On the 6th inst., at Sutherland-street, Warwick-square, the wife of Thos. Chambers, M.R.C.P.Ed., F.R.C.S.Ed., of Bolton-row, Mayfair, of a son.

CLOUSTON.—On the 13th inst., at Garlands, Carlisle, the wife of T. S. Clouston, M.D., of a daughter.

CREAR.—On the 14th inst., at Maryport, the wife of John Crerar, M.R.C.P.E., of a daughter.

ELLERY.—On the 9th inst., at the Shrubbery, Axminster, Devon, the wife of H. J. Ellery, M.D., of a daughter.

KETTLE.—On the 15th inst., at Small-heath, Birmingham, the wife of H. Kettle, M.R.C.S.E., of a son.

MACKENZIE.—On the 3rd inst., at Sidmouth, the wife of J. Ingleby Mackenzie, M.B., of a son.

PEARCE.—On the 11th inst., at the Manor House, Brixton-rise, the wife of Charles Pearce, M.B., of a daughter.

MARRIAGES.

BRABAZON—PIERPOINT.—On the 19th inst., at the Parish Church, Warrington, William Philip Brabazon, M.D., of Lymm, Cheshire, to Eleanor, eldest daughter of B. Pierpoint, Esq., J.P., of St. Austin's, Warrington.

MITCHELL—FLEMING.—On the 14th inst., at All Saints' Church, Cockermouth, Harrison Mitchell, M.D., to Alice, eldest daughter of Mr. Joseph Fleming, of Cockermouth.

NASON—CLEMENTI.—On the 14th inst., at Attenown Church, John Harrison Nason, M.D., to Grace, widow of J. M. Clementi, Esq.

DEATHS.

ARMSTRONG.—On the 3rd inst., at Toronto, Canada, J. Hunter Armstrong, M.R.C.S.E., late of Gravesend.

BARLAS.—On the 1st of Oct., at Geelong, Australia, Dr. James Barlas.

COWDELL.—On the 15th inst., at Dorchester, Charles Cowdell, M.D., Physician to the Dorset County Hospital, aged 56. Friends will kindly accept this intimation.

DAVENPORT.—On the 20th inst., at the Grange, Chigwell-row, Essex, Chas. Davenport, L.S.A., aged 67. Respected by all who knew him.

GILDER.—On the 19th ult., W. T. Gilder, of Margate, late Assistant-Surgeon Scots Fusilier Guards, aged 33.

HECKFORD.—On the 14th inst., at Ramsgate, Nathaniel Heckford, M.D., M.R.C.S.E., founder of the East London Hospital for Children, Ratcliffe-cross, after a lingering illness, brought on by his efforts to help the poor, especially of the East-end of London. *Friends* are requested to accept this intimation.

MACKENZIE.—On the 13th inst., D. J. MacKenzie, M.D., House-Physician, City Fever Hospital, Edinburgh, aged 28.

NORTON.—On the 5th inst., J. E. Norton, M.D., of Grey Friars, Chester.

SPENCER.—On the 7th inst., at Brompton, J. Frowd Spencer, M.R.C.S.E., formerly of Fonthill Gifford, Wilts, aged 82.

Medical Diary of the Week.

Monday, Dec. 25.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, Dec. 26.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.

Wednesday, Dec. 27.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL.—Operations, 3 P.M.

Thursday, Dec. 28.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION. — 3 P.M. Prof. Tyndall, "On Ice, Water, Vapour, and Air."

Friday, Dec. 29.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Dec. 30.

HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION. — 3 P.M. Prof. Tyndall, "On Ice, Water, Vapour, and Air."

Notes, Short Comments, and Answers to Correspondents.

THE CONTAGIOUS DISEASES ACT IN BOMBAY.

THE post of medical officer of health to the Municipality of Bombay is obviously no sinecure. In his last Quarterly Report, Dr. Howlett mentions that for economical reasons the collection of the Wheel Tax schedules has been entrusted to his department, besides which he appears to be concerned with the building regulations of the city, and, if we do not mistake, be is the city coroner also. It is not surprising, therefore, that the Preventive Establishment of the Contagious Diseases Act has been placed under his charge, still less that he has gone into this branch of his multifarious duties with characteristic energy. Accordingly a registration of prostitutes and of brothels has been instituted, the names of the former with numerous particulars being inscribed in a general register, which is kept posted up like a ledger in respect of each woman's history. There were 509 prostitutes on this register in September last, and 96 persons, having received the sanction of the Commissioner of Police, were registered as brothel-keepers. The majority of the prostitutes were between 20 and 30 years of age, there being 61 under 20, and 60 over 30; 31 were of Christian and 15 of Jewish race; and Dr. Howlett notices with satisfaction that he has discovered no British woman in the ranks of this community, though one of English descent had been found living as a prostitute with natives, whom he had induced to abandon her mode of life, finding her a place as nurse in the Lock Hospital. About 15 per cent. of the prostitutes were married women, while 51 per cent. were widows; as regards the latter, Dr. Howlett says that the impelling motive to prostitution is mostly stated to be want of means of support, and he appeals to the benevolence of the public for the establishment of Widows' Almshouses, so that necessity should no longer be adduced as the plea for vice. The average number of prostitutes in hospital was 102 in September, and the percentage found on examination during the same month to be diseased was seven. The working of the Act under Dr. Howlett's supervision is, however, in its infancy, and we must therefore await his subsequent Reports for any detailed statement of results.

LEADING STRINGS.

WHEN the University of London gave up furnished apartments in Piccadilly, and went into the grand new house in Burlington-gardens, she doubtless thought she was about to taste the sweets of liberty, that her leading strings by which she was connected with the Government would be severed or at all events relaxed, and that she would be allowed to have the unfettered management of her own pin-money. These dreams, if ever indulged in, have not been realised, as will be seen on reference to the proceedings of the Senate on October 25th, 1871. The Government apparently has so little confidence in the combined wisdom of the Senate that it is unwilling to let them move alone, even in the most trivial matters, and we find accordingly an official letter from the Treasury concerning the amount of accommodation to be provided for the Assistant-Registrar. It is by correspondence like this that the outside world is sometimes enabled to catch a glimpse of the kind of work which proves so ruinous to some of our foremost statesmen. It also shows what an accommodating and mighty engine the Government is, and how, like the Nasmyth hammer, it is equally competent to tax our incomes with an extra twopence, or haggle over "furnished apartments." Then, again, there is a letter from the Audit Office, inquiring why no account has been rendered to that department of the Government of the accumulated funds of the Brown Trust, amounting at present to £33,781 14s. 11d.; and to this question the Registrar very properly replied that the action of the Senate "as trustees of the Brown Animal Sanatory Institution is not in any way subject to the control of the Audit department." We should think not, and we cannot believe that the liberal testator ever intended that his legacy was to be subjected to the control of officials of an ever-changing Government. We are glad to see that Dr. Storrar has given notice that at the next meeting of the Senate he will move the following resolution:—

"That a special Committee be appointed to consider and report on the position of the University with reference to the Government departments."

We sincerely hope that Dr. Storrar's motion may be the means of establishing the competency of the University to manage its own affairs, and that the Government will be content with merely using the University building for all the government examinations, and will not be overanxious to meddle in matters which cannot concern them. From reading this correspondence we should almost fancy that the University only occupied its present residence on sufferance, that it was not built by a special parliamentary grant, and that the Government had the power of giving "notice to quit." We have been much reminded by the perusal of these letters of a scene which occurred in Lant-street, in the Borough, when the smutty-faced servant put her head round the door, and thus addressed the much-badgered lodger: "Please, Mr. Sawyer, Mrs. Radkle wants to speak to you, sir."

Mr. P. Karkeek (Torquay) will perceive that we alluded to the subject last week.

ASIATIC CHOLERA.

To the Editor of THE LANCET.

SIR,—Now that the subject of cholera is again attracting the attention of the public mind, I would beg to direct that attention to a subject of some interest and importance.

We are generally in the habit of tracing the origin of the contagious exanthemata to the time of the religious wars of the Saracen conqueror, about the year of Christ 622, and a question very naturally arises, Why did cholera only first appear in this country, and indeed in Europe, in the year 1831? Or to put the same question in the still more expressive language of the medical officer of the Privy Council in the Public Health Report of 1865, "For what reason is it that Asiatic cholera during the last half century has had certain definite fits of pandemic extension, and has three times been extensively fatal in Europe, where formerly it had been unknown or was forgotten?" Now, it appears to me that the answer to this question is a very simple one. I consider that it was Napoleon Buonaparte's Egyptian expedition that opened up the overland route, and I consider further that it is the overland route that has introduced the cholera into Europe. Buonaparte's Egyptian expedition occurred in the year 1798, and since that date the overland route has been continually increasing in importance and utility; and as a consequence of the increased traffic by the overland route, cholera has visited this country at regular and stated intervals, which I have endeavoured to define and account for.

The present invasion, as has been well pointed out by a writer in *The Times*, is not a regular visitation, but a mere resuscitation of the cholera of 1865-66, just as the occurrence of cholera in the year 1854 was a mere resuscitation of the cholera visitation of 1848-49.

I am perfectly well aware that it will be objected by the intense Britisher that the overland route was known previous to the time of Buonaparte. I am quite aware of this fact, and that it is as old at least as the time of Solomon, but maintain that it was Buonaparte's Egyptian expedition that modernised and practilised this great idea. It may also be objected that cholera follows other routes besides that strictly denominated overland. These I consider are only very slight deviations, and do not at all affect the broad general principle involved.

I remain, Sir, yours, &c.,

Hullerhirst, Dec. 11th, 1871. ALEX. HAMILTON HOWE, M.D.

DR. ROYSTON AND MR. FREEMAN.

Mr. Freeman writes to us to say that, although we have caused asterisks to be placed at the end of Dr. Royston's letter in our issue of December 2nd, stating that the controversy between him and Mr. Freeman must now cease, yet he will be happy to refer the matter to the arbitration of any impartial medical man.

J. F. L.—There is no such College as that from which he professes to get his diploma.

Dr. E. S. Veale.—To answer our correspondent's third question first, all doubly qualified men registered under the Act of 1858 are now qualified to hold Poor-law appointments in England, provided their qualifications were obtained in the United Kingdom. This was not always so. Prior to the Act of 1858 the Poor-law Board used to act somewhat anomalously in regard to the qualifications required of its officers. It accepted a surgical qualification from any part of the United Kingdom; but by article 168 of the Consolidated General Order, medical degrees or licences conferred by the Universities and other public bodies in England alone were deemed essential.

Dr. Frederick J. Brown warns our readers against the pretensions of a person professing to be an American doctor, and to cure stammering. The facts are not quite sufficiently certified to be published.

X. Z. should call the attention of the College of Surgeons to the matter.

THE TREATMENT OF PYREXIA BY COLD.

To the Editor of THE LANCET.

SIR,—It was with very great interest I read Dr. Wilson Fox's communications to THE LANCET on the "Application of Cold in Hyperpyrexia," and I have been looking for the appearance in subsequent issues of accounts of the experiences of others with the same agent, but in vain. The silence which has followed your appeal and that of the editor of the *Practitioner* proves how seldom this powerful agent is employed by the present generation of medical men; but I trust no very long time may elapse before your pages shall be occupied with recorded experiences of its value in hyperpyrexia. Such cases, however, as those in which it was so successfully employed by Dr. Wilson Fox are not of frequent occurrence, and some time must elapse before his experience can, to any considerable extent, be added to, and confirmed by, the observations of others.

But while cases of hyperpyrexia are comparatively rare, this cannot be said of *pyrexia*, which is one of the most frequent conditions the physician has to deal with, and it may fairly be argued that what in a truly heroic form is remedial in hyperpyrexia will in a modified form be useful in pyrexia. The term pyrexia I here employ to signify the febrile condition simply, whether as found in specific fevers, or when merely symptomatic. The degree of discomfort or malaise, and to a great extent that of danger, experienced by the sufferer from pyrexia is in exact proportion, as a general rule, to the abnormal elevation of temperature he sustains; and any agent which would tend to reduce the temperature without producing a similar effect on the vitality of the patient would, in so far as it did so, be the means of economising his strength, diminishing the danger, and increasing his comfort. Where the pyrexia is symptomatic merely, the system would thus be relieved (with an efficacious agent) entirely of a serious complication; and where it is specific, the severity of the attack would be materially modified; and in the same ratio, as a general rule, the chances of recovery increased.

When in charge of a fever hospital several years ago, I employed sponging with cold water, pouring cold water over the head (on which the hair was retained), and applied towels wet with cold water round the body in such cases as attained a higher temperature than usual, or exhibited marked febrile oppression. The patients were invariably much relieved, and the rate of mortality was only 10 per cent. at a time when an adjoining fever hospital had a death-rate of 14 per cent. In a personal experience of typhus fever I had six or seven years ago, a wet sheet pack, followed by a tepid and cold affusion, was invariably attended with a decrease of temperature and pulse-rate, and a marked gain in comfort. From two to three hours usually intervened before the temperature and pulse had risen again so as to require a repetition of the process, and this procedure was continued throughout the entire attack, diminishing the severity of the fever, and securing a convalescence yet speedier even than typhus patients usually have.

And here I shall take the liberty of pointing out that two of your recent contributors on this subject, Dr. Balbirnie and Mr. Munro, seem to have overlooked, when pressing the claims of the wet sheet pack, that *hyperpyrexia*, and not pyrexia merely, was under consideration, and in which a perusal of Dr. Wilson Fox's papers should at once show that the pack would be quite inadequate to cope with the formidable development of temperature. When iced clothes frequently changed failed to produce any appreciable lowering of the temperature, I do not think it likely that the application of clothes wrung out of water at the natural temperature, and packed closely with a profusion of dry blankets, would succeed in reducing it, and I do not see that any milder course was open to Dr. Wilson Fox than that he adopted. The pack, however, I know from personal experience and observation to be simply invaluable in pyrexia from whatever cause, and Dr. Balbirnie's letter goes far to explain its *modus operandi*, and does not exceed as a description of its beneficial effects. Your own New York correspondent has chronicled its decided success in the practice of the New York medical faculty during the epidemic of relapsing fever recently experienced in that city (THE LANCET, vol. i., 1871, p. 175). Dr. Hermann Weber speaks highly of its use in scarlatina, and Stallard and Huss in enteric fever.

In the slighter forms of febrile disturbance, a modification of the pack in the shape of a wet towel, thoroughly wrung out and covered with a dry envelope, applied round the body, will almost invariably produce a marked salmative effect, and form an admirable antiphlogistic where feverishness is feared.

But the cold affusion and cold bath have been employed in the pyrexial condition in the past by men whose names are of great weight in the present, and there is no lack of witnesses to their beneficial influence in many forms of febrile disturbance. Dr. Murchison's admirable work on Continued Fevers contains numerous favourable references to the use of the cold affusion, and makes mention of a number of its advocates both in this country and on the Continent. Trousseau, Todd, West, Bull, Tanner, Anstie, Currie, Armitage, Maclean, H. Weber, F. Weber, Schroeder, Foville, Letheby, and a host of learned Germans have united in promulgating a knowledge of their advantages in a number of diseases attended with pyrexia; nor have they seen reason, as a rule, to accompany their recommendations with qualifications on the score of danger.

I trust some of the most trustworthy, most powerful, and most scientific of all the remedies our profession has ever employed shall no longer be permitted to remain in comparative desuetude and neglect, but be promoted speedily to their proper position in therapeutics.

I am, Sir, your obedient servant,

Forres, December 12th, 1871. W. B. H.

An Army Surgeon.—Our correspondent is, we believe, correctly informed; and it is a very significant fact in the history of the outbreak of cholera at Secunderabad that one family attached to the Hussars—that of the regimental apothecary—drank water from a different source from that supplied to the troopers, and, though residing close to the hospitals, not a single member of this family was attacked by cholera or diarrhœa.

Asthma, (Kennington-park-road.)—We regret that our rule precludes us from prescribing; indeed it might be dangerous to do so under the circumstances. Why does not our correspondent ask his usual medical attendant or one of his medical friends to nominate some physician with whom he might consult?

Chirurgus.—The guardians can at any time put an end to a vaccination contract by giving three months' notice; in other words they can insist upon electing the district medical officer, whoever he may be, if they choose to do so.

Dr. T. Clays Shaw's letter shall be inserted in our next impression.

MORPHIA AN ANTIDOTE TO STRYCHNIA.

To the Editor of THE LANCET.

SIR,—I see in your journal of the 9th instant a letter from Mr. Mayor with the results of experiments upon horses with morphia and strychnine, proving that these drugs "neutralise each other's action"; and as the subject is one of much importance I shall be glad if you will find room for some cases which occurred in my practice some years ago.

CASE 1.—A young married woman, aged twenty-two, having quarrelled with her husband, took a packet of Battle's vermin-killer, and immediately afterwards two drachms of laudanum, and then, to make assurance trebly sure, half a drachm of the ordinary red precipitate, or binoxide of mercury. Being from home when sent for, I did not see her until three hours after these lethal drugs had been swallowed, and was surprised to find my patient suffering from very dangerous narcotism alone, all the symptoms of poisoning from strychnine being absent—kept in abeyance I thought by the opium; for as it is our chief remedy for traumatic tetanus, e. g., why should it not be the remedy for like symptoms produced by a different occasion? Now what was I to do in this case? Let my patient stand her chance of recovering from the dangerous narcotism which was present for fear of withdrawing the antidotal check of the opium on the more dangerous strychnine? Clearly I must not let my patient die from the effects of the opium, and therefore I gave her a scruple of sulphate of zinc; and as this had very little effect, I used the stomach-pump, and was rewarded by a dislodgment of a considerable quantity both of Battle's powder and the red mercurial powder. My treatment then was to pump in a pint of very strong coffee mixed with the whites of six eggs (the albuminous matter being to neutralise the effects of the irritating mercurial salt), and after watching my patient carefully for two or three hours longer, and finding her recovery from the opium complete, and no symptoms of poisoning from the strychnine, I left the poor woman, who mended rapidly without a bad symptom.

Reflecting upon this case, which was very gratifying to me, I felt that we had the remedy for strychnine poisoning, and that if another case of such poisoning should occur I would give a full dose of opium as the remedy, repeating it if necessary, and it was not very long before I had an opportunity of proving the value of this treatment in the following well-marked case.

CASE 2.—A. K——, aged seventeen, a very fine young woman (pregnant four months), swallowed a packet of Battle's vermin-killer. Her surgeon had been with her about half an hour, using all the usual remedies; but the poor girl was becoming rapidly worse, and unless she was speedily relieved must inevitably have died: for there was complete opisthotonos, the body resting on the bed on the head and heels, and the abdomen a rigid arch; the muscles being in a state of complete tension, the poor creature giving utterance to the most frightful shrieks, followed by a period of relaxation lasting from one to two or three minutes, to be again succeeded by violent spasms and contortions and shrieks, as previously described by me. During the spasmodic seizures the countenance was intensely red, but during the periods of relaxation deadly pale, and the whole body in a state of cold perspiration, the pulse being hardly perceptible. The case being a very dangerous one, I asked the medical man in attendance to allow me to prescribe at once, and hurried home for some tincture of opium and chloric ether, of which I gave a drachm of each in two ounces of water. And (with God's blessing) the remedy acted like a charm; for the paroxysms were stayed almost at once, and in two hours the poor girl was sleeping calmly, and although continuing weak for a time, she recovered perfectly, and carried her child to the full period without aborting, as I expected she would.

The next case is that of a fine terrier dog, who had eaten some mice poisoned with strychnine, and in whom all the symptoms were very strongly marked, but from which condition he recovered perfectly after a dose of opium and putting him under a running tap of cold water.

I have had very lately two cases of trismus after severe smashes from machinery (in the one case of the hand, the other of the foot), in which there was recovery under the use of chloral. In one case I gave thirty grains every two, three, or four hours for nearly three weeks; but in the other case the disease was arrested almost *in limine*.

I am, Sir, yours faithfully,

Seaham Harbour, Dec. 11th, 1871. T. C. BEATTY, M.R.C.S.

CEYLON.

A CORRESPONDENT wishes to refer M. Le Roy de Méricourt, of Paris, to "Ceylon—a General Description of the Island and its Inhabitants," by Henry Marshall, published by W. H. Allen and Co., 1846; to Sir Emerson Tennent's work on the Island; and to the several papers published from time to time in the different volumes of the Army Medical Blue-book.

B. E.—We have no doubt that our correspondent's case is capable of cure; but we can only repeat what we have said already. Let him ask the advice of a medical friend as to whom he had better consult.

Navy had better apply through the Medical Department of the Navy, Somerset House.

B. S.—The address of the Registrar is, A. K. Stephenson, Esq., Friendly Societies Registration Office, 28, Abingdon-street, to whom application should be made.

Dr. Maclagan.—Yes, with pleasure, if it be kept within short compass.

Warrington.—We had occasion in our issue of Nov. 11th to comment upon the proceedings of the Sanitary Committee at Warrington, and we have now complaints of the manner in which a recent vacancy at the Warrington Dispensary has been filled, the local practitioners being set aside for a young man recently brought into the town, and this at the recommendation of the Local Government Board!

Inquirer.—It depends on the guardians, and the alternative open to them.

NORTHAMPTON PROVIDENT DISPENSARY.

To the Editor of THE LANCET.

SIR,—In THE LANCET of Dec. 9th, and in a printed paper by Dr. Bryan, of Northampton, complaints against the Northampton Provident Dispensary are published, on the ground of its alleged admission of ineligible free members, and the reduction of its acting medical officers from six to three. By those who know the history of provident dispensaries, and my connexion with their first successful establishment, it will be readily understood that I cannot hear of any evils arising from these institutions without extreme regret. With this feeling I have carefully re-examined the rules, construction, and reports of the Northampton Dispensary, with a view to ascertain if the abuses complained of arose from any fault in its constitution, or from the way in which it is conducted.

I find that at Northampton the same means of protecting the interests of the medical profession were adopted as at Coventry. The medical officers are, *ex-officio*, on the Committee for the admission of members. The Northampton Dispensary began with six medical officers, who had, or would have had if they had exercised their functions as members of the Committee, much influence in admitting or rejecting all applicants for the benefits of the institution. In addition to this, they are especially invited to give their opinion as to the admission of every applicant, and to report on their subsequent professional visits to the members as to the propriety of their having been admitted.

Under these regulations surely the medical officers could have prevented the evil which led three of them to resign. The power was placed in their hands for the especial purpose of protecting their own interests and the interests of the profession. I am the more desirous of alluding to this as one of the duties of the medical officers of these institutions, in the hope that in other similar dispensaries the medical attendants may be induced to fulfil this duty. If medical men do not protect the interests of the profession, by whom are we to expect those interests to be protected?

The number of medical officers of the Northampton Dispensary is three; the number of members 6000. The proportion recommended by the Medical Committee of the Charity Organisation Society is one medical officer to every 1500 free members. In accordance with this suggestion, there is now a vacancy in the institution for one medical officer; but these proportions must obviously depend on local circumstances. It is manifestly more conducive to the interests and success of a provident dispensary to have a few zealous acting medical officers than a larger number, some of whom may not have their hearts in the work. It is, however, obviously important, and but just, not to make monopolies of these institutions; and I know of no better means of providing against this than the law suggested by the Charity Organisation Society for the election of medical officers.

I am, Sir, your obedient servant,

Torquay, Dec. 18th, 1871. C. B. NANKIVELL.

PREVENTABLE DISEASE.

To the Editor of THE LANCET.

SIR,—The times in which we live call for serious reflection by all thinking minds. The heir of the British throne is stricken in the flower of his manhood by a confessedly preventable disease. Small-pox and disorders of a like preventable character are every day adding to the list of their victims. We are told there are 100,000 preventable deaths in England every year; indeed some compute that one-half of our annual mortality comes under this head.

Now, where does the root of the evil lie? The sphere of the medical man is chiefly the dealing with disease after it has become established. He is practically powerless with regard to prevention. We may have Public Health Acts, Nuisance Removal Acts, and many other valuable agencies; but these will prove unavailing unless the people themselves are taught how to prevent the approach of disease. The amount of ignorance and prejudice on this matter, even in the highest ranks of life, is perfectly astounding. A man's education is completed, he studies for a business or a profession, and never hears perhaps a single word about how to preserve his health or that of his family should he become the head of a household. The doctor is called in after the evil is done, and often too late to be of any service. And thus it must and will go on till at any rate the elements of sound physiology and hygiene form a part of the elementary school education. The doctor may spend his energy in the way of removing the effects; but disease and premature death will everywhere abound until those who have the power direct their attention to the removal of the causes. Many good and honest people say there must always be disease, though we lived in a state of sanitary perfection, it being the punishment "of man's first disobedience." Death is, but disease is not. We have no more right to assume that the Creator has any other relation to disease (certainly not to "preventable" disease) than he has to broken bones when they occur. The connexion of cause and effect in the latter case is obvious, and hence no one here would introduce the Almighty so as to set aside the connexion of cause and effect. But when the connexion is not so obvious, the pious popular mind is always ready to ascribe the result to God, as if produced by him in some direct way, and on some mysterious account. The real truth would seem to be that the "visitations of Providence" are sent in strict accordance with law, and law to which we are responsible. God is as really the author of what we call the natural laws of health as of any law recorded by his authority in the sacred page. Disease is the punishment springing, not from the fall of Adam, but necessarily from violation of laws of health either by ourselves personally or by our progenitors. It is strange that on this subject men should be so "slow to hear," when in ordinary business matters they are so keenly alive to their interests.

If our legislators would only strike at the root of the malady—educate the masses, teach them the really fundamental means of prevention, and popular delusion would no longer work such havoc in God's fair creation. At the very least the disgrace to the community—preventable disease and premature death—might be spared.

Yours truly,

St. Helen's, Melrose, N.B., Dec. 14th, 1871. A. B. MUNRO, M.B.

Mr. G. T. Wills.—Many such statistics have appeared in our columns. Those who are not convinced would not be persuaded by any amount of evidence. Scepticism in regard to the advantage of revaccination depends not on want of evidence, but on want of the faculty of judging of evidence.

Corrective.—We never were in the same predicament, and can only, therefore, suggest soap and water, or a new pair.

Mr. J. P. O'Donovan's communication arrived too late for notice this week.

TEACHING IN THE LONDON MEDICAL SCHOOLS.

To the Editor of THE LANCET.

SIR,—I quite agree with the sentiments expressed in the letter signed "G. S." in your last number, and I think that if his suggestion of your sending a representative round to the various medical schools, to see in what manner the various lecturers on anatomy were fulfilling their responsible duties, were carried out, we should ere long find many of these gentlemen descend from the cloudland of visionary anatomy, into which they seem at present to be wandering, into the plain yet interesting paths of practical anatomy. I think the idea of a "chiel amang them takin' notes" cannot but have a good effect in this direction. My son is at Guy's, and on his return home of an evening I question him upon what he has been taught during the day, and I have no hesitation in saying that the lecturers on anatomy in my day would have taught him a great deal more practical knowledge in the course of one lecture than these gentlemen teach in a week. They appear to be lecturing only to those clever and *rara aves* who are trying for the Honours division of the London University, while they soar over the heads of the great majority of their class. I think if the ghost of poor John Hunter could have been present at a lecture I heard the other day, he would have gone away with the idea that that great anatomist could not have known so very much after all. No, what we fathers who are not blest with London University sons want is to see a practical course of lectures given which everyone in the class can understand and listen to with pleasure—good, solid, practical anatomy, which can be expanded and embellished, according to the bent of the individual student, by reading in his study or by demonstrations in the dissecting-room; and it is in the latter place and at extra lectures at their own homes that ambitious lecturers might allow a little of their superfluous crotchets and niceties to be ventilated to a select class of sympathising spirits.

I would like to say a word, too, about the class examinations. In some of the schools there is no such practice, and in others it resolves itself into the merest farce: the lecturer on a certain day putting a few questions to the whole class collectively, and to which anyone who at the proper moment happens to have his eye on his note-book, and happens during the week to have jotted down the reply, can answer. There is no roll called to insure students being present. Now in Scotland the practice is very different, and much more rational. Every morning there is a roll called, and one day in each week there is a class examination, when the lecturer takes the roll, and picks out any name he chooses, the gentleman so chosen having to stand up and answer the question put to him before the whole class. This puts each man on the *qui vive*, as no one knows when his turn is coming, and the fear of appearing ridiculous in the eyes of his fellow-students acts as a great incentive to an idle man. Moreover, there are class prizes given for those who have answered the best during the session, and in some of the classes prizes are given to those who have taken the best notes during the session. If this system were pursued at Guy's, I am sure that not nearly so many would be obliged to have recourse to a "coach." It does seem monstrous that students should be obliged to go outside the walls of their *alma mater* to be taught the first principles of their studies; but while the present system of lecturing is persisted in, this will continue to be the case.

I am, Sir, yours obediently,

December, 1871. A COUNTRY PRACTITIONER.

To the Editor of THE LANCET.

SIR,—You gave insertion to a letter in last week's number, signed "G. S.," referring to anatomical lectures at a certain school, in answer to which I should like to say a few words. From the manner in which he has put it—and, like him, I should much prefer not to mention names,—I can easily see he means the hospital to which I am attached, but do not think the cap fits; far from it. Your correspondent, I am sure, could not have attended any of the lectures, otherwise he would never have thought of saying aught but in their praise, nor of mentioning that which was not true. It is not true that fourteen lectures were devoted only to the microscopical structure and the formation of bone by the first lecturer, and then that all the bones of the body were gone through except those of the cranium and the vertebræ; for, in fact, only the first few lectures were employed in describing the structure of bone; then the bones themselves were minutely described, including the ligaments and the practical points bearing upon them. The bones of the cranium were certainly not minutely gone into this time, as they were fully described last session. These are the only exceptions. Then as regards the muscles: instead of beginning with those of the back, as "G. S." asserts, these were the last ones of the trunk that were gone through; all the others, except those of the extremities (which latter were reserved for lectures later on), were fully described, with their actions, &c. Instead of no examination being held to test the progress of the student, the lecturer is constantly asking the class questions, thus enabling them to acquire a ready habit of answering.

Before closing, I cannot help considering that it can only be idle students—not industrious ones—that complain of the excellent lectures; for, after all, these only give a general idea of anatomy, and are nothing more than aids to the study of it in the dissecting-room. First-year's students ought to knock the idea out of their heads that they can learn anatomy in the lecture-room; but unfortunately many have that idea, and I am afraid those that made complaints to your correspondent.—Yours faithfully,

December 20th, 1871. H. M.

Fair Play.—We agree with our correspondent. We hope the system complained of will soon be fully exposed. Meantime it is better to publish only well ascertained facts.

Mr. J. Whitehead.—We spoke not on the information of a correspondent, but in reference to a bill published by Mr. Whitehead himself.

Anxious should apply direct to the authorities of the qualifying body whose licence he seeks.

A Country Dentist thinks that where a surgeon-dentist exists or tries to exist in a town, surgeons should not draw teeth, but send all such cases to him. A few examples of looseness in orthography and perhaps the want of a qualification suggest a possible explanation of our correspondent's brethren acting differently.

C. J. W., M.B.—We have called the attention of those directly concerned in the matter to the facts mentioned by our correspondent, and we are assured that the advertisement in question does not appear under the heading "Cheap and Popular Books."

Southsea should write to the Secretary of the College of Surgeons. Our advertising columns generally, however, give the information sought for.

THE LATE ACTION AGAINST A MEDICAL MAN.

To the Editor of THE LANCET.

SIR,—Will you allow me through your columns to acknowledge the following subscriptions on behalf of the Testimonial Fund now being raised for Dr. D. H. Watson, of Stockton, whom it will be remembered was honourably acquitted of a charge of unskilful treatment brought against him by a Miss Hutchison in the management of a difficult case of inverted uterus. Although getting a verdict, and an order for costs against the plaintiff, Dr. Watson is still called upon to discharge a very heavy amount incurred during the conduct of his case, and which, from the inability of the plaintiff to meet the costs which have been incurred, he will have to pay. I have received the following sums:—

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Further subscriptions will be thankfully received by Dr. W. Oliver, Stockton-on-Tees; Dr. G. H. Hume, Westgate-street, Newcastle-on-Tyne; or by,

Yours faithfully,

Stockton-on-Tees, Dec. 18th, 1871. GEO. S. BANHAM, Hon. Sec.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Burrows; Dr. Brabazon, Lymm; Dr. Peacock; Mr. S. Peters; Dr. Allbutt, Leeds; Mr. Palmer, Lynn; Dr. O'Donovan; Mr. Barrett, Grimston; Mr. Taylor, Bradford; Mr. Maynard; Mr. Harvey; Mr. Parry, Digbeth; Mr. Thomas, Warwick; Mr. Deane, Salford; Dr. Tidy; General Buckley; Mr. Allen; Mr. Stuart, Gravesend; Mr. Sheriff Bennett; Mr. Raynolds; Dr. Shaw; Dr. Bennett, Cheltenham; Dr. Williams; Mr. W. Thomas; Mr. Fahie, Grange; Dr. Moore; Dr. Holland; Dr. W. H. Corbett; Mr. W. Akerman; Mr. J. Smith; Mr. Peterson; Mr. Banham, Stockton-on-Tees; Dr. Adams, Sarcoaba Hospital, Brazil; Dr. Clouston, Carlisle; Dr. Wills, Crewkerne; Mr. Spencer; Dr. Broadbent; Mr. Howard; Mr. Mahomed; Mr. W. Lyon; Dr. Barnes; Mr. Wheelhouse; Mr. Goode; Mr. Hemming; Mr. Horoman, Bradford; Mr. Greener, Ipswich; Dr. Deane, St. Ives; Mr. J. Arthur; Mr. West; Mr. Saunders; Dr. Russell; Dr. Pavy; Mr. J. Postgate, Cambridge; Dr. Carpenter; Mr. Lawrie; Mr. Walley, Manchester; Mr. Bolton; Dr. Ellery, Axminster; Mr. Horne, Wallingford; Mr. Martin; Dr. Huxley, Jersey; Mr. Roberts; Mr. Haynes; Mr. Walter; Mr. Crerar, Maryport; Dr. Munro, Melrose; Mr. Karkeek, Torquay; Dr. Maclagan, Dundee; Mr. Dawson; Dr. Davies, Wrexham; Mr. Hall; Mr. Robinson; Dr. Hicks, Harrold; Dr. Coates; Mr. Gale; Dr. Nankivell, Torquay; Mr. Cowdell, Dorchester; Mr. Walsh; Dr. Falk, Southampton; Dr. Fleming, Wigton; Mr. Ansell, Fenny Stratford; Dr. Hall; Mr. Black; Dr. Mackenzie, Sidmouth; Mr. M'Rae; Mr. Batteson; Dr. Fraser; Mr. Parker; Mr. Smith, Halifax; Mr. Bristowe; Mr. Teevan; Dr. Chambers; Mr. Hammick; Mr. J. Maccabe, Ballybay; Dr. Valela, Coruuna; Dr. Gillies, Bradale; Dr. Veale, Ripley; Mr. Atkinson, Stamford; Mr. Jutson, Great Bowden; Mr. Bevan; Mr. Greer, Leicester; Dr. Lowe, Wakefield; Mr. Danvers; Mr. Wade, Ilford; Mr. Robson; Mr. Jones, Eltham; Mr. Fairlie; E. M.; Zeta; B. E.; Asthma; M.B., C.M.; J. J. B.; W. D.; A Country Dentist; Halifax; A Senior Assistant-Surgeon; W. B. H.; Navy; A Candidate; London Fever Hospital; A Fourth-Year's Medical Student; &c. &c.

Canada Lancet, Northampton Herald, Surrey Comet, Dundee Advertiser, Lincoln Gazette, Annales de Dermatologie, Halifax (N.S.) *Evening Express, Transactions of the Odontological Society, Philadelphia Medical Times, Lincolnshire Chronicle, Eastern Daily Express, Journal of the Scottish Meteorological Society, North Devon Herald, La Revue Scientifique, Shield, United Service Gazette, Liverpool Weekly Albion, Croydon Advertiser, La Epoca Medico, Scotsman,* and *Wiener Medizinische Presse* have been received.

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